Entrepreneur and Venture Support Programs in Ho Chi Minh City Da Nang Phnom Penh

Appendix 1
All Locations

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The Evidence Network

The Evidence Network

Provided under contract to The Asian Development Bank

By

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with support of

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www.theevidencenetwork.com

Report Structure

We have created this report as the appendix to the main report, provided separately. In this report we present our in-depth assessment of the venture support programs in Da Nang, Ho Chi Minh City, and Phnom Penh including the detailed analyses and diagrams.

The Mekong Business Initiative (MBI)

The Evidence Network would like to thank the Australian Government's Mekong Business Initiative for supporting the preparation of this report. MBI is an advisory facility that promotes private sector development in Cambodia, the Lao People's Democratic Republic (Lao PDR), Myanmar, and Vietnam. MBI fosters development of the innovation ecosystem by supporting business advocacy, alternative finance and innovation. It is supported by the Government of Australia and the Asian Development Bank.

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Contents

1. TEN's Methodology

The methodology employed by The Evidence Network Inc. (TEN) is represented in the logic model for innovation intermediaries shown below in Figure 1.1. The logic model illustrates how innovation intermediaries work to fulfill their missions, and how TEN measures their impact. The term innovation intermediary broadly encompasses business support programs that operate to further the development of business, and includes export and internationalisation support.

As shown at the top of the figure, innovation intermediaries express their objectives in terms of enhancing national competitiveness, advancing regional economic development, bolstering industry strength, or supporting viable new ventures.

TEN's logic model expresses the expectation that innovation intermediary activities create shorter-term impacts on companies' resources and capabilities, which lead to subsequent impacts on company performance, and ultimately lead to longer-term impacts in the form of socio-economic benefits, an expectation that holds across all types of innovation intermediaries. Details of how innovation intermediaries achieve their desired impacts are shown in the lower part of the figure. Knowledge-based and tangible inputs lead to a wide range of activities such as provision of knowledge, relationships, events, publications, prototypes, equipment, and facilities. The activities are expected to lead, in turn, to the shorter, medium, and longer-term impacts described above.

Statistical examinations of the relationships between the use of services offered, impact on resources and capabilities, and impacts on company performance make it possible to assess which services and impacts on resources and capabilities are significantly related to the impact of the intermediary on companies' performance in the market.

Figure 1.1: TEN's Innovation Intermediary Logic Model

2. Description of Sample

In June of 2016, 206 out of 274 companies that had participated in venture support programs responded to a web-based survey. Table 2.1 provides further details on the response rate by program. During the same period the 309 entrepreneurs representing a random sample of young companies operating in Da Nang were interviewed.

Table 2.1 Response Rate by Venture Support Program

Location	Program	Program Size	Invitations	Respondents	Response Rate
Phnom Penh	Emerging Markets	8	7	6	86%
	Ministry of Commerce 101 program	87	83	58	70%
	National Business Plan Competition		20	14	70%
	WeCreate	18	17	14	82%
	NOMI Network	20	10	8	80%
	Total	**133**	**137**	**100**	**73%**
Ho Chi Minh City	Business Startup Support Centre	100		10	
	Argi Business Incubator		17	6	35%
	Business Incubation and Innovation Centre – Nguyen Tat Thanh University	15	8	5	63%
	Nong Lam University – Center for Technology Business Incubation		9	3	33%
	Saigon Hi-Tech Park – Incubation Center	~20	16	8	50%
	Information Technology Park – Vietnam National University in HCMC	~10	16	11	69%
	Quang Trung Software Business Incubation Center	10	9	7	78%
	Ho Chi Minh City University of Technology – Technological Business Incubator		6	5	83%
	Total	**141**	**81**	**55**[1]	**56%**
Da Nang	Da Nang Business Incubator	8	8	8	100%
	College of Information Incubator	15	15	13	87%
	Da Nang SME Association	500	33	20	61%
	Total	**523**	**56**	**41**	**73%**

We have been asked to exclude those companies supported by the Da Nang SME Association from the analysis sample on the basis that programming of the Da Nang SME Association differs substantively from the other venture support programs, and therefore cannot be considered in the same analysis context. All analyses of impact therefore exclude the Da Nang SME Association including the descriptions in Appendix 1 (All Locations), and Appendix 2 (Da Nang). We have, however, included the

[1] The Business Startup Support Centre (BSSC) has approximately 100 clients. However, we do not have information on the response rate for the BSSC, as they provided the survey link to their clients directly. As a result, we do not include the BSSC in the overall response rate calculation.

SME Association in our aggregate presentations of company and entrepreneur characteristics, on the premise that the SME Association supports companies (albeit in different ways than the incubators), and the number of respondents that engaged with the Da Nang SME Association constitute a relatively small portion of the total population (20 of 206 respondents).

The Random Sample of Young Companies

3. Demographics of the Random Sample of Young Companies

This section of the report provides information on the 309 entrepreneurs, and company respondents from the random sample of young companies operating in Da Nang.

Firm Characteristics of the Random Sample of Young Companies

The analysis of the demographics of the random sample of young companies revealed that:

- 71% of companies generate less than 5B VND in annual revenues
- 74% have not received funding
- 75% have one or two full-time, paid founders; 80% do not have any full-time unpaid founders
- 44% have three to five full-time paid employees; 54% do not have any full-time unpaid employees
- 75% have some percentage of the founders or employees in their company with domestic displacement experience; 88% have no founders or employees that have studied or worked outside Vietnam
- 34% have more than 65% of their founders or employees educated with college or university degrees
- 46% do not have any founders or employees that are family members
- 72% have modest growth plans; 15% have high growth plans
- 79% do not have a website
- 23% operate in the construction sector; 17% operate in the retail or wholesale sector
- 35% were founded in 2015; 13% were founded in 2016

We begin by providing information about the companies' annual revenues, financial support received, employee demographics, international and domestic displacement experience, growth plans, year founded, industrial sector, and company website. Figures describing the surveyed companies follow, accompanied by the corresponding survey questions, number of respondents (n), and analysis findings.

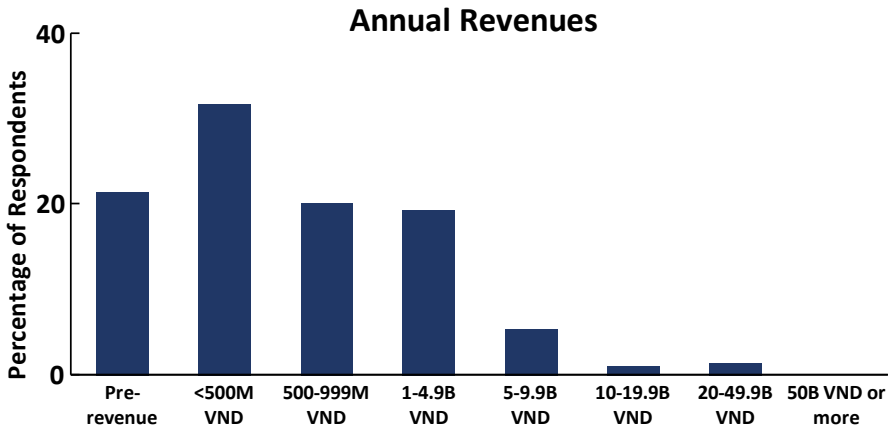

Figure 3.1

What are your company's annual revenues?

n=300

Findings:

- *71% of respondents reported that their company generates less than 5B VND in annual revenues.*
- *21% of respondents reported that their company is pre-revenue.*

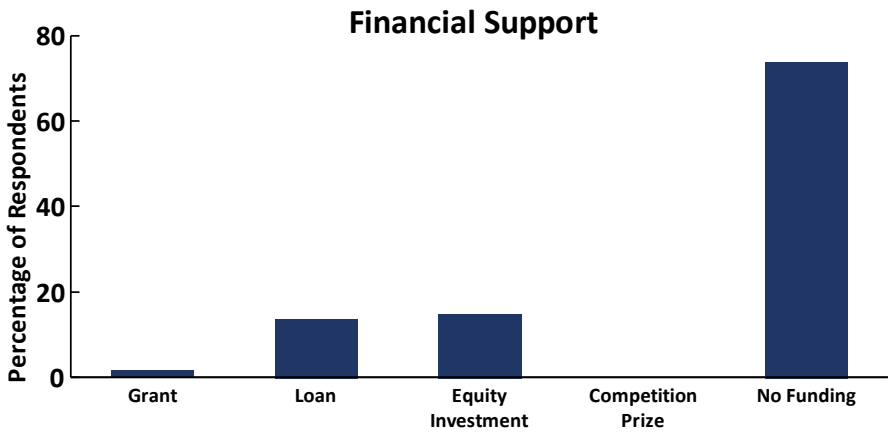

Figure 3.2

Has your company received funding?

n=301

Finding:

- *74% of respondents reported that their company has not received funding.*

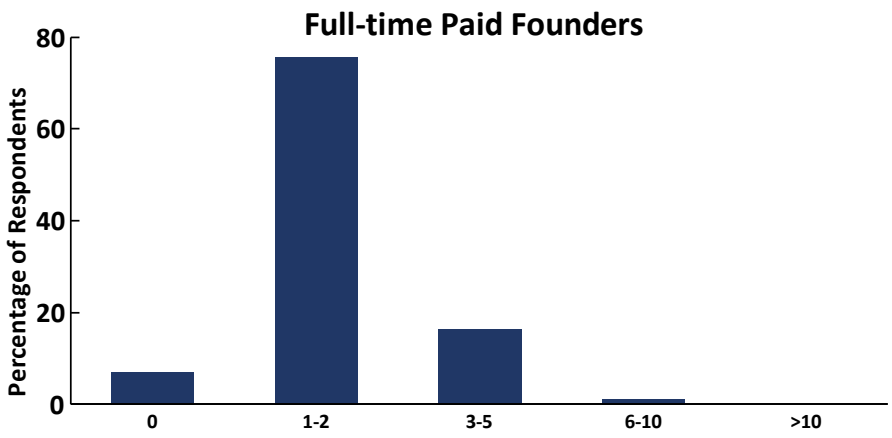

Figure 3.3

How many full-time paid founders are there in your company?

n=283

Finding:

- *75% of respondents reported that their company has one or two full-time paid founders.*

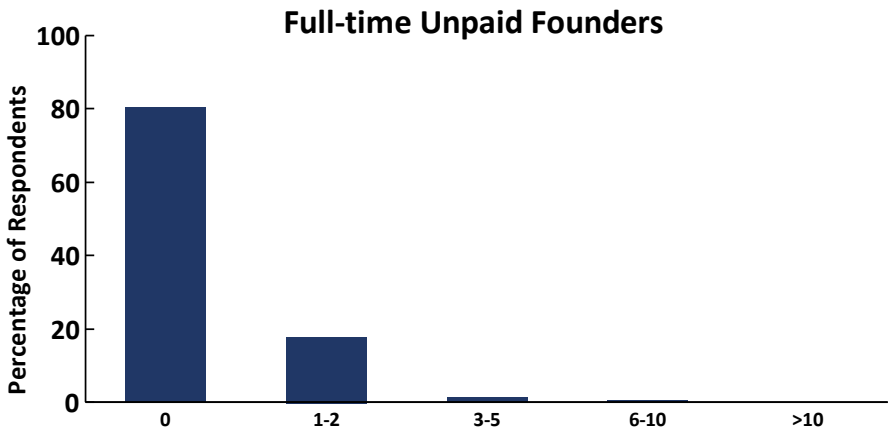

Figure 3.4

How many full-time unpaid founders are there in your company?

n=173

Finding:

- *80% of respondents reported that their company does not have any full-time unpaid founders.*

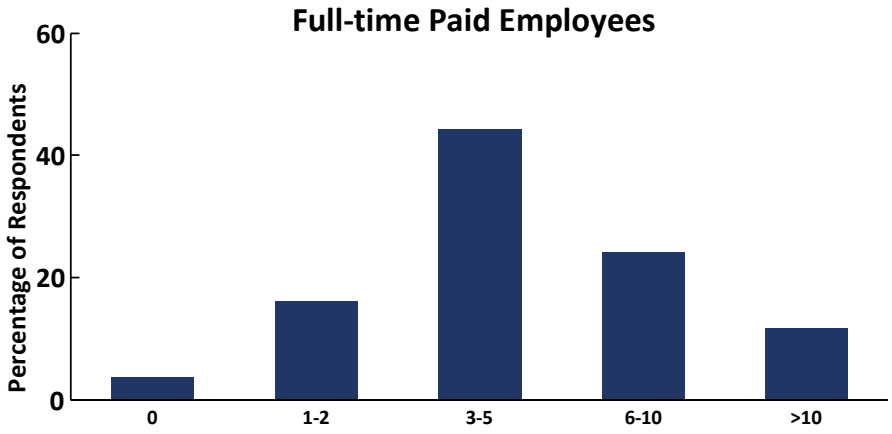

Figure 3.5

How many full-time paid employees are there in your company?

n=290

Findings:

- *44% of respondents reported that their company has three to five full-time paid employees.*
- *35% of respondents reported that their company has six or more full-time paid employees.*

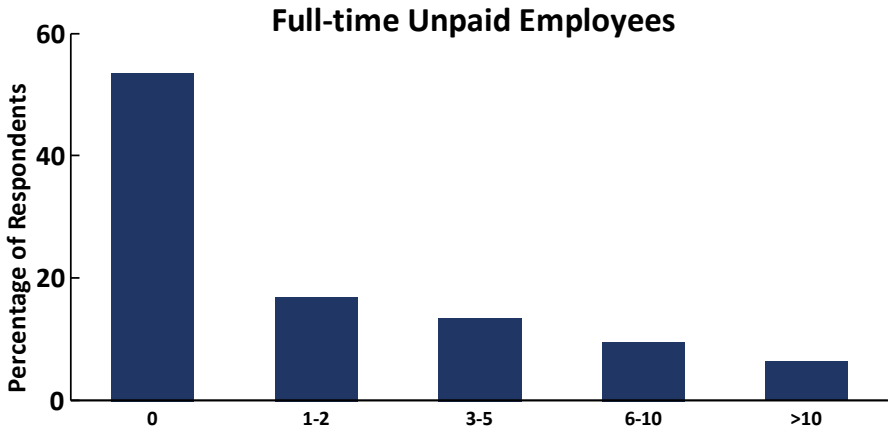

Figure 3.6

How many full-time unpaid employees are there in your company?

n=200

Finding:

54% of respondents reported that their company does not have any full-time unpaid employees.

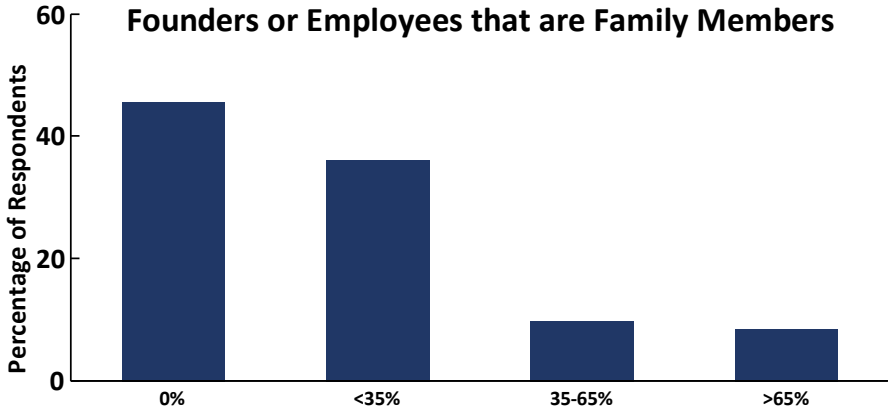

Figure 3.7

How many founders or employees in your company are family members?

n=305

Finding:

- *46% of respondents reported that their company does not have any founders or employees that are family members.*

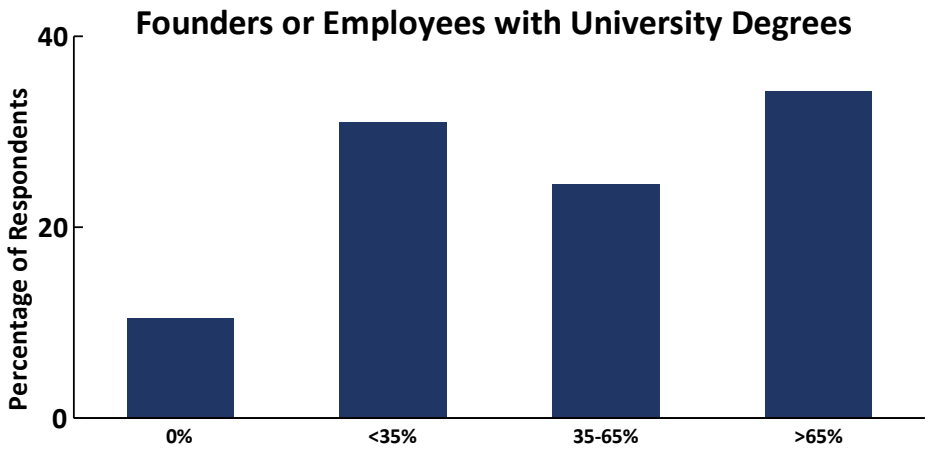

Figure 3.8

How many founders or employees with college or university degrees are there in your company?

n=307

Finding:

- *34% of respondents reported that more than 65% of the founders or employees in their company have college or university degrees.*

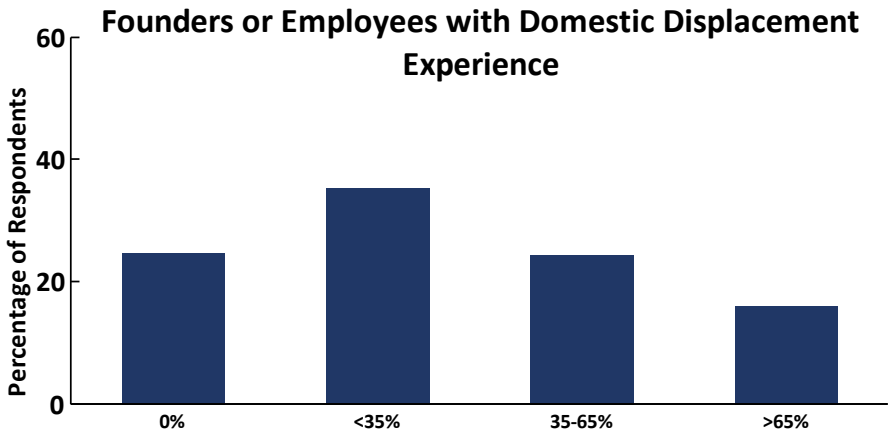

Figure 3.9

How many founders or employees in your company have worked outside the town or city where they grew up?

n=301

Finding:

- *75% of respondents reported that some percentage of the founders or employees in their company have worked outside the town or city where they grew up.*

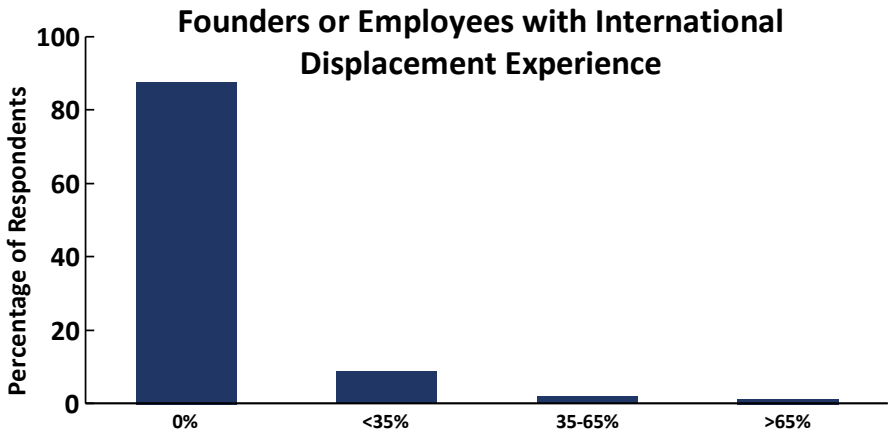

Figure 3.10

How many founders or employees in your company have studied or worked outside Vietnam?

n=292

Finding:

- *88% of respondents reported that none of the founders or employees in their company have studied or worked outside Vietnam.*

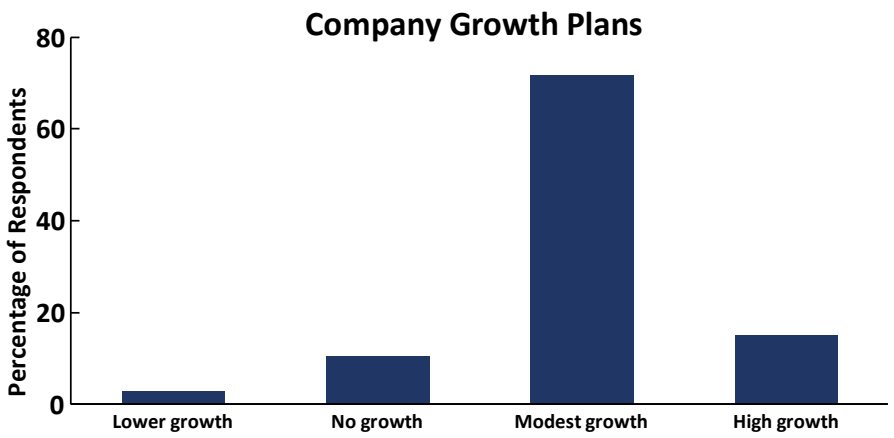

Figure 3.11

What are your company's revenue growth plans?

n=307

Findings:

72% of respondents reported that their company has modest growth plans.
15% of respondents reported that their company has high growth plans.

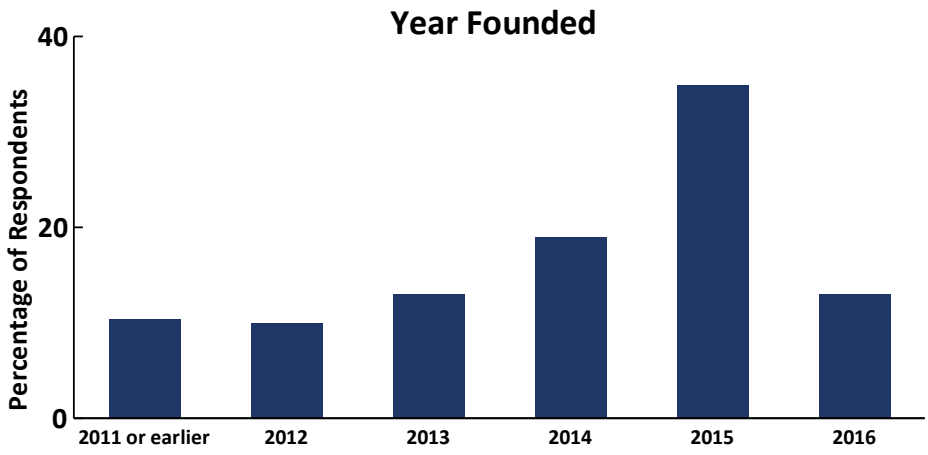

Figure 3.12

When was your company founded?

n=301

Findings:

- *35% of respondents reported that their company was founded in 2015.*
- *13% of respondents reported that their company was founded in 2016.*

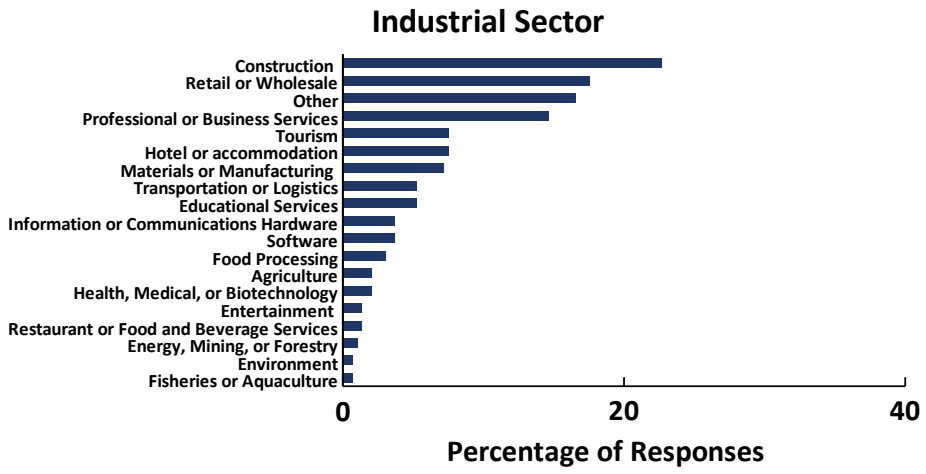

Figure 3.13

In what industrial sector does your company belong?

n=309

Findings:

- *23% of respondents reported that their company operates in the construction sector.*
- *17% of respondents reported that their company operates in the retail or wholesale sector.*

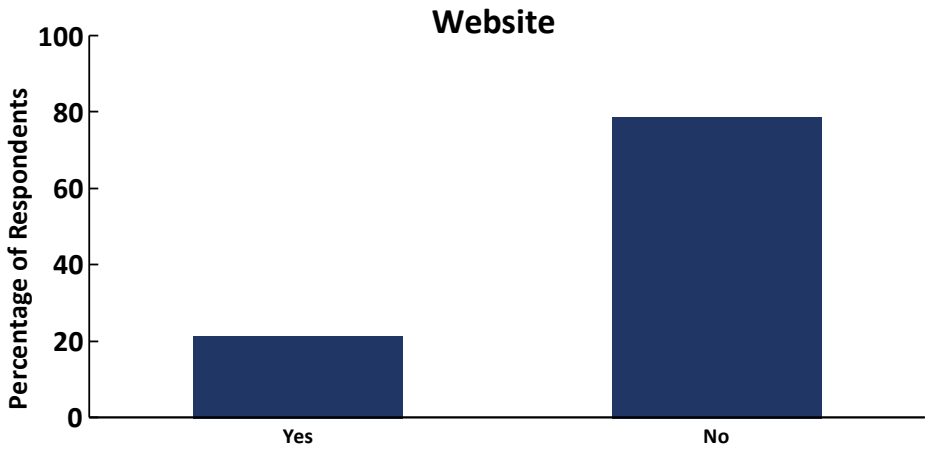

Figure 3.14

Does your company have a website?

n=308

Finding:

- *79% of respondents reported that their company does not have a website.*

Entrepreneur Characteristics of the Random Sample of Young Companies

The analysis of the entrepreneurs of the random sample of young companies revealed that:

- 61% of entrepreneurs are 36 or older
- 65% are male
- 55% have a college or university certificate
- 92% have not studied or worked outside of Vietnam
- 88% did not have a family business
- 90% had an internship as a student; of those who had an internship, 72% were employed by a private company
- 62% had five or more years of work experience prior to founding their company
- 34% do not have a Facebook account; 32% have 100 – 499 Facebook friends

This section provides information about the entrepreneurs' age, gender, level of education, international experience, prior experience in family business, internship experience, prior work experience, and Facebook network. Figures describing the surveyed entrepreneurs follow, accompanied by the corresponding survey questions, number of respondents (n), and analysis findings.

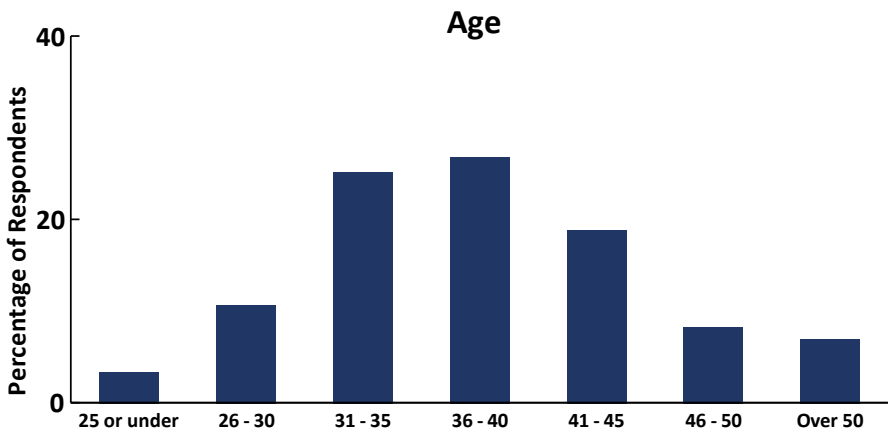

Figure 3.15

What is your age?

n=302

Finding:

- *61% of respondents reported that they are 36 years old or older.*

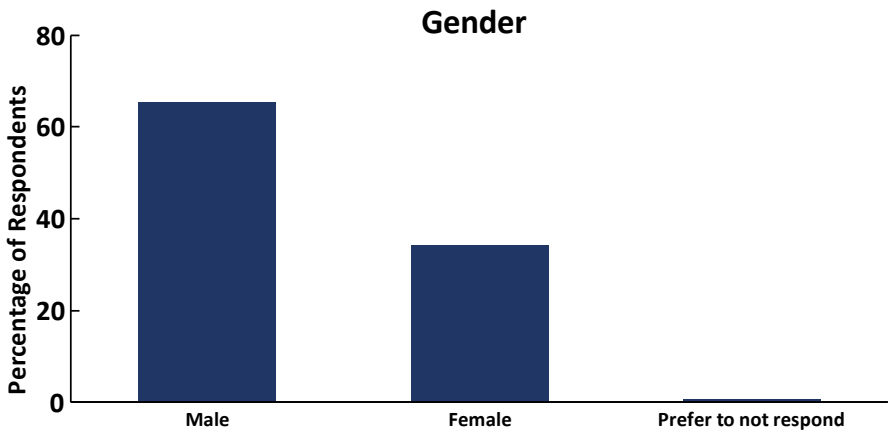

Figure 3.16

What is your gender?

n=308

Finding:

- *65% of respondents reported that they are male.*

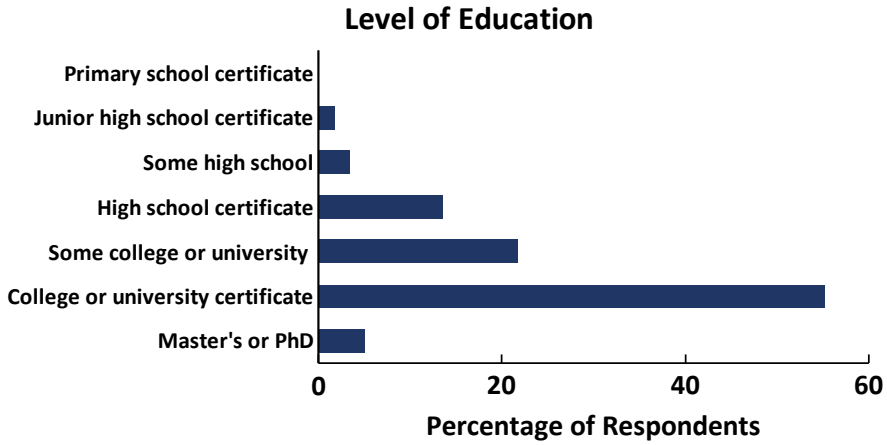

Figure 3.17

What is your highest level of education?

n=305

Finding:

- *55% of respondents reported that they have a college or university certificate.*

Figure 3.18

Have you studied or worked outside of Vietnam? Please select all that apply.

n=286

Finding:

- *92% of respondents reported that they have not studied or worked outside of Vietnam.*

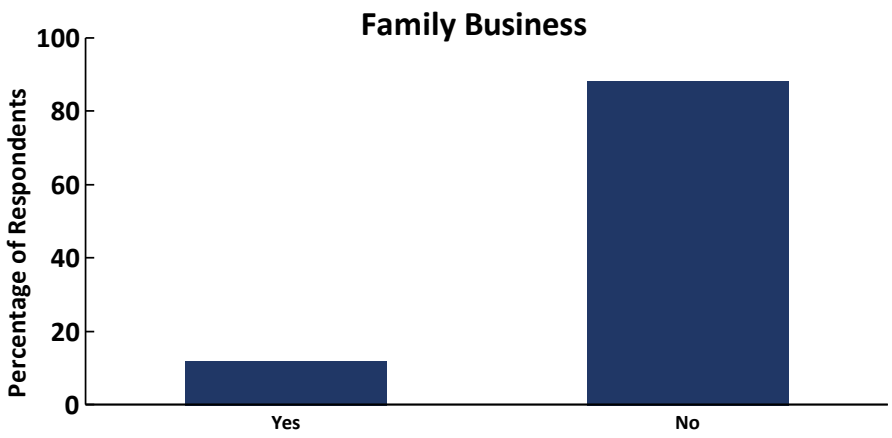

Figure 3.19

Did your parents own a business?

n=304

Finding:

- *88% of respondents reported that their parents did not own a business.*

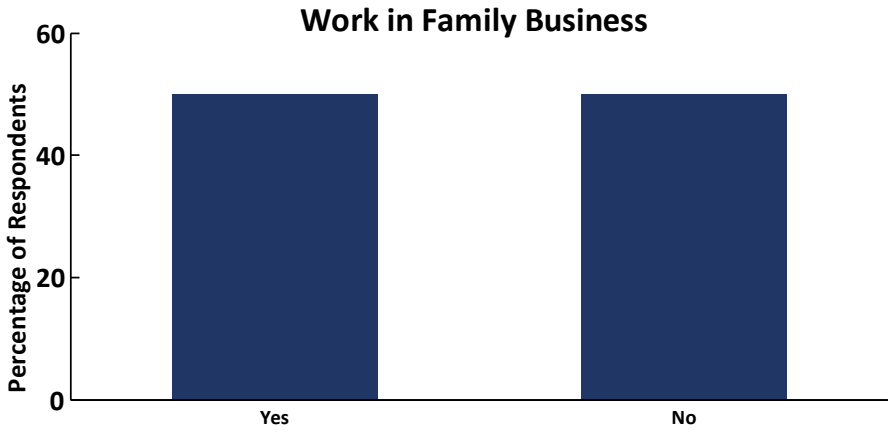

Figure 3.20

Did you work in your parents' business?

n=36

Finding:

- *Of those that reported their parents owned a business, 50% reported that they worked in that business.*

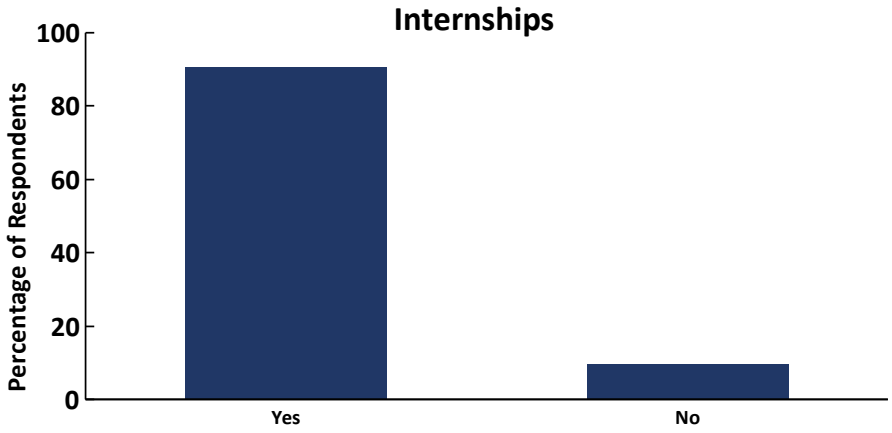

Figure 3.21

Did you have an internship as a student?

n=249

Finding:

- *90% of respondents reported that they had an internship as a student.*

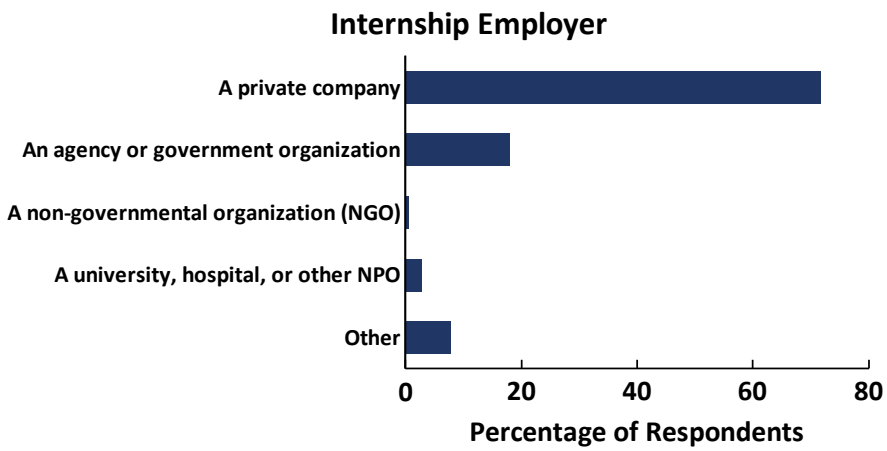

Figure 3.22

Please specify your internship employer?

n=225

Finding:

- *Of those respondents that had an internship, 72% reported that their internship employer was a private company.*

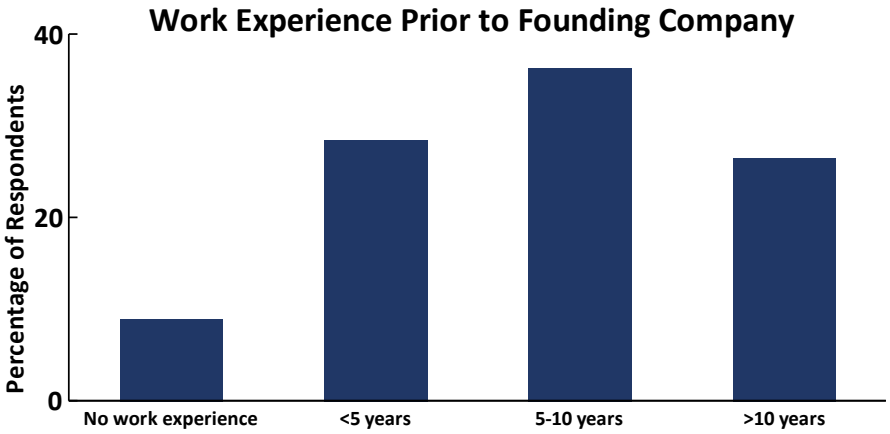

Figure 3.23

Before founding your company, how much work experience did you have?

n=303

Finding:

- *62% of respondents reported that they had five or more years of work experience prior to founding their company.*

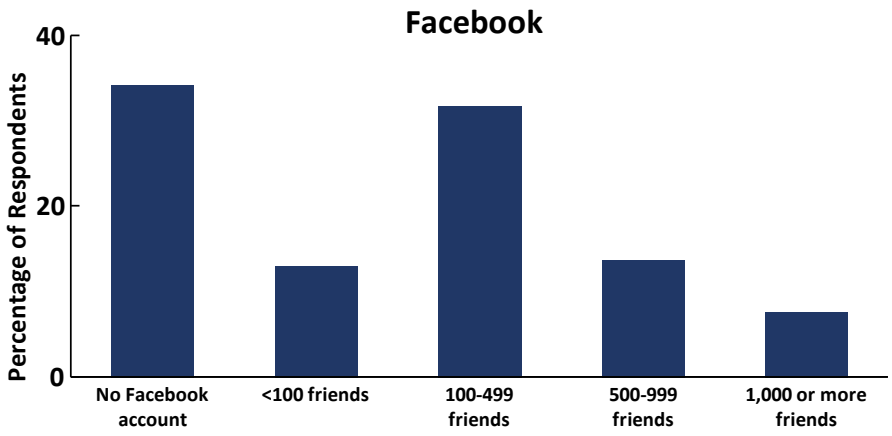

Figure 3.24

How many Facebook friends do you have?

n=293

Findings:

- *34% of respondents reported that they do not have a Facebook account.*
- *32% of respondents reported that they have 100 – 499 Facebook friends.*

Venture Support Program Participants – All Locations

4. Demographics of the Participants in the Venture Support Programs in All Locations

This section of the report provides information on the 196 entrepreneurs, and company respondents from those companies participating in the venture support programs operating in Da Nang, Ho Chi Minh City, and Phnom Penh.

Firm Characteristics of the Venture Support Program Participants

The analysis of the demographics of companies participating in the venture support programs across all locations revealed that:

- 34% companies are pre-revenue; 38% generate less than $50K USD in annual revenues
- 35% received financial support
- 53% have one or two full-time, paid founders
- 25% have more than ten full-time, paid employees; 25% have three to five
- 37% have one or two full-time, unpaid employees
- 53% do not have any founders or employees that are family members
- 61% have more than 65% of the founders or employees in their company with university degrees
- 48% have more than 65% of the founders or employees with domestic displacement experience
- 54% of respondents have founders or employees with international displacement experience
- 34% have high growth plans; 55% have modest growth plans
- 57% were founded in 2014 – 2016
- 25% operate in the software sector; 18% operate in the information or communications hardware sector
- 60% have a website
- 71% joined the program to network with other entrepreneurs
- 53% first engaged with their program in 2015; 23% of respondents first engaged with their program in 2016

We begin by providing information about the companies' annual revenues, financial support received, employee demographics, international and domestic displacement experience, growth plans, year founded, industrial sector, company website, reasons for joining the program, and year of first engagement. Figures describing the surveyed companies follow, accompanied by the corresponding survey questions, number of respondents (n), and analysis findings. For each measure we first present the findings for the whole sample of the venture support program participants, followed by the charts and findings for each of the participating cities.

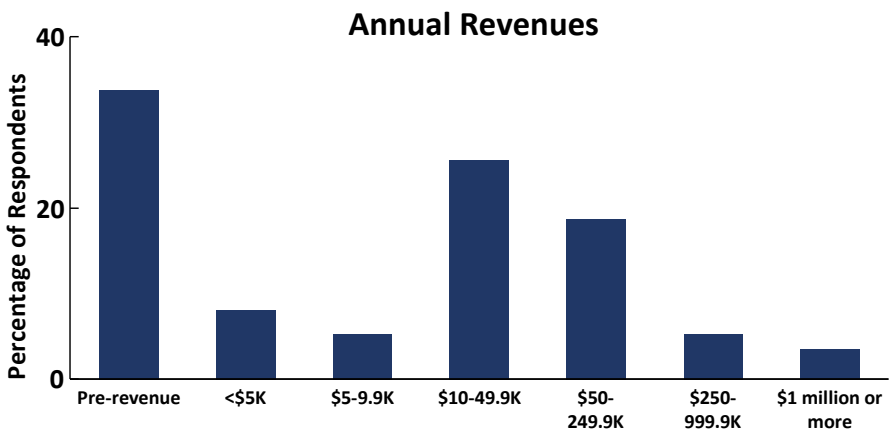

Figure 4.1

What are your company's annual revenues?

n=170

Findings:

- *34% of respondents reported that their company is pre-revenue.*
- *38% of respondents reported that their company generates less than $50K in annual revenues.*

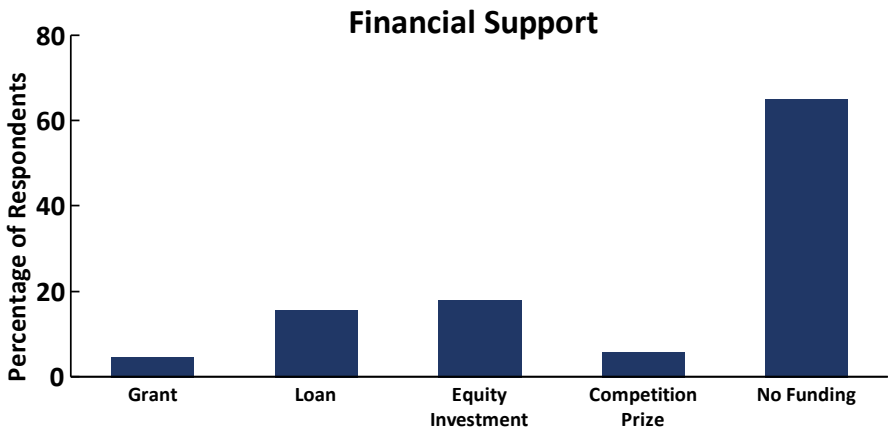

Figure 4.2

Has your company received funding?

Please select all that apply.[2]

n=172

Finding:

- *35% of responses indicate receipt of one or more types of financial support.*

[2]Respondents were asked to select all types of applicable financing, therefore the percentages add up to a value greater than 100%.

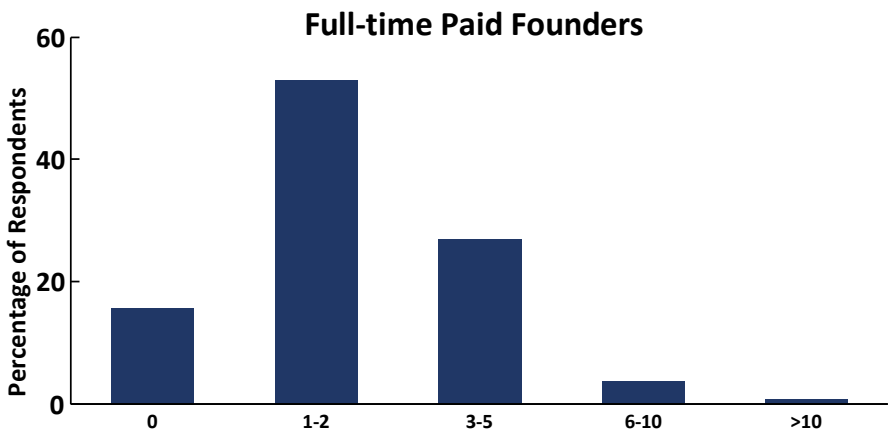

Figure 4.3

How many full-time paid founders are there in your company?

n=134

Findings:

- *53% of respondents reported that their company has one or two full-time, paid founders.*
- *27% of respondents reported that their company has three to five full-time, paid founders.*

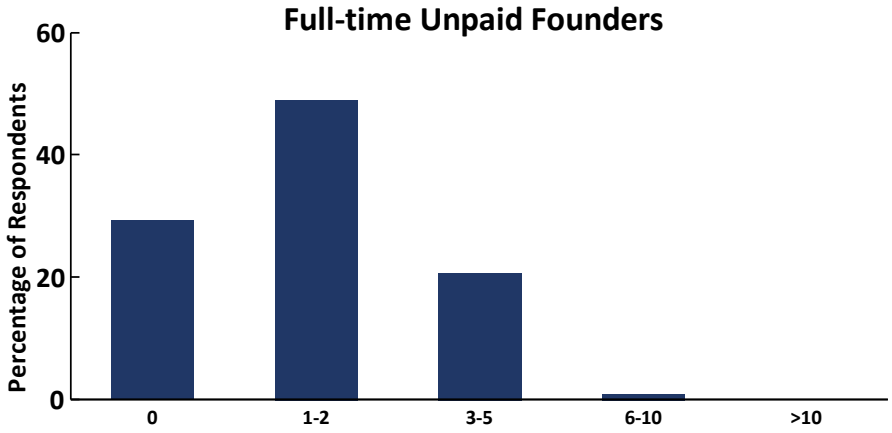

Figure 4.4

How many full-time unpaid founders are there in your company?

n=106

Findings:

- *49% of respondents reported that their company has one or two full-time, unpaid founders.*
- *21% of respondents reported that their company has three to five full-time, unpaid founders.*

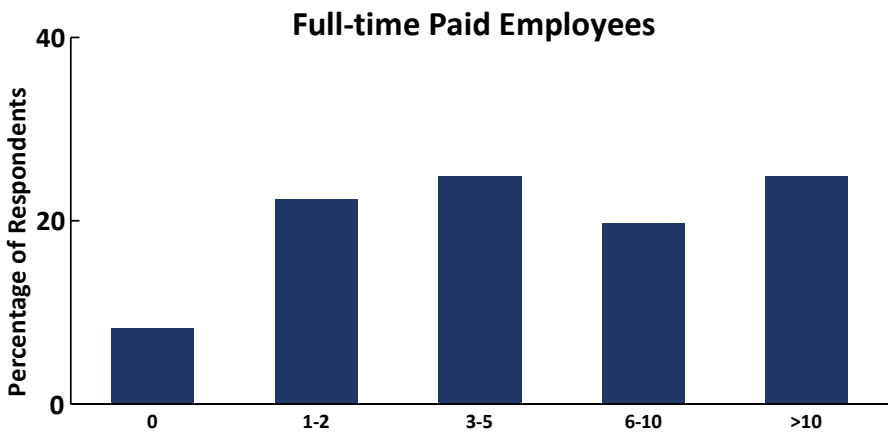

Figure 4.5

How many full-time paid employees are there in your company?

n=157

Findings:

- *25% of respondents reported that their company has more than ten full-time, paid employees.*
- *25% of respondents reported that their company has three to five full-time employees.*

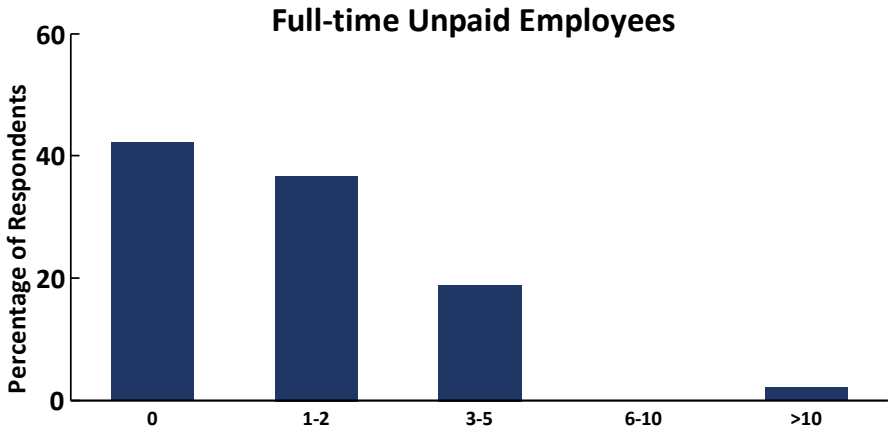

Figure 4.6

How many full-time unpaid employees are there in your company?

n=90

Findings:

37% of respondents reported that their company has one or two full-time, unpaid employees.
19% of respondents reported that their company has three to five full-time, unpaid employees.

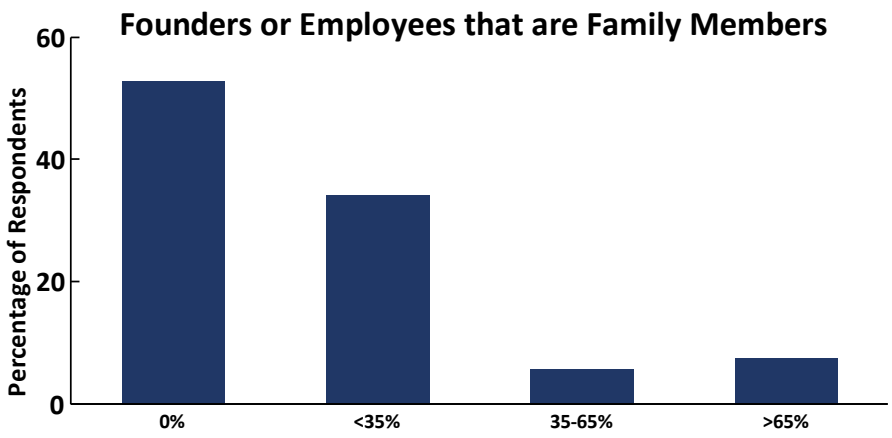

Figure 4.7

How many founders or employees in your company are family members?

n=176

Finding:

- *53% of respondents reported that none of the founders or employees in their company are family members.*

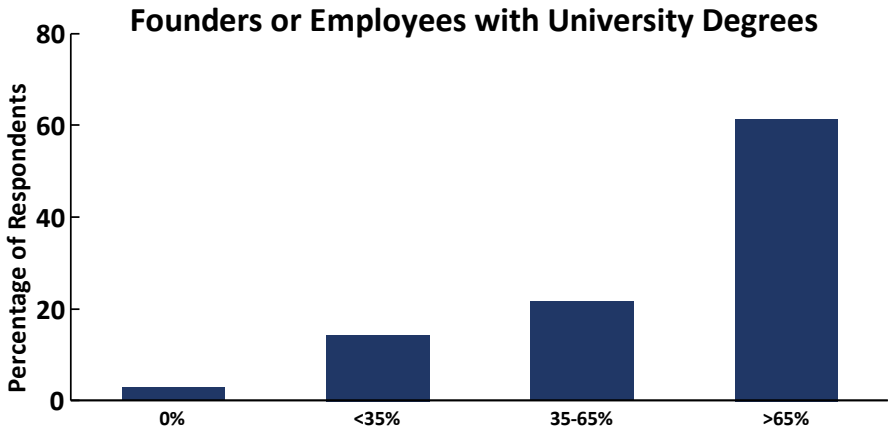

Figure 4.8

How many founders or employees with college or university degrees are there in your company?

n=176

Finding:

- *61% of respondents reported that more than 65% of the founders or employees in their company have university degrees.*

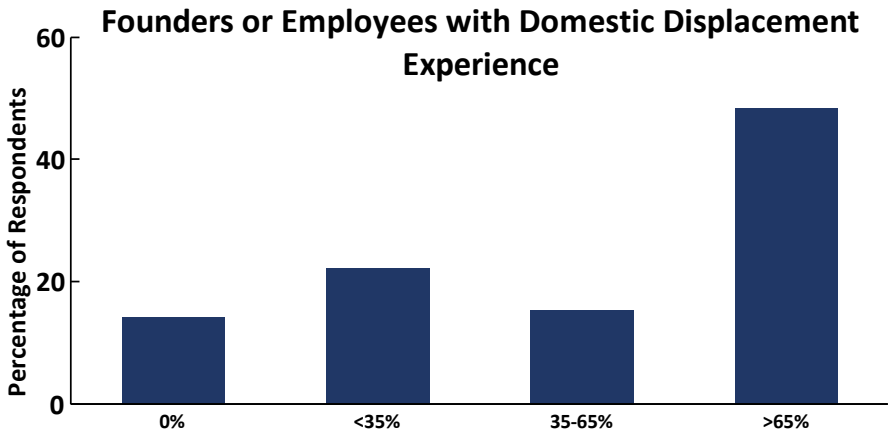

Figure 4.9

How many founders or employees in your company have worked outside the town or city where they grew up?

n=176

Finding:

- *48% of respondents reported that more than 65% of the founders or employees in their company have domestic displacement experience.*

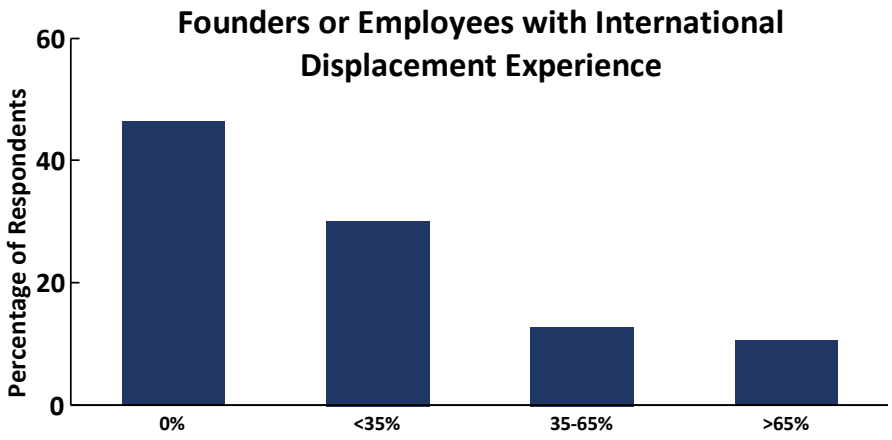

Figure 4.10

How many founders or employees in your company have studied or worked outside your country?

n=179

Finding:

- *54% of respondents reported that their company has founders or employees with international displacement experience.*

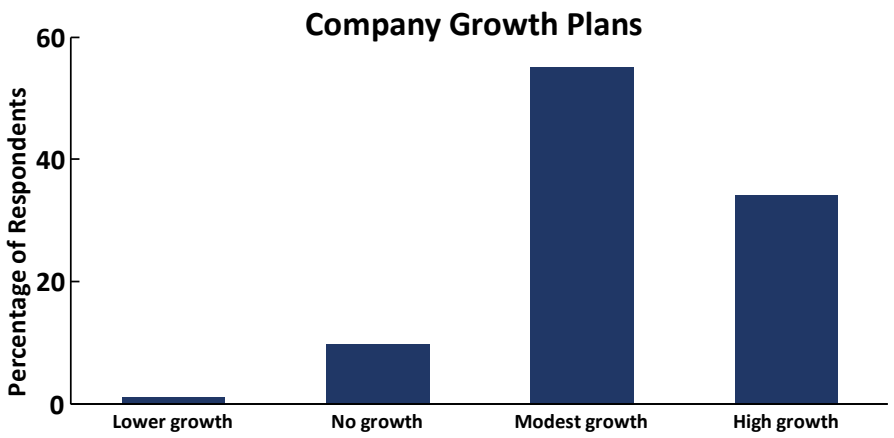

Figure 4.11

What are your company's revenue growth plans?

n=173

Findings:

34% of respondents reported that their company has high growth plans.
55% of respondents reported that their company has modest growth plans.

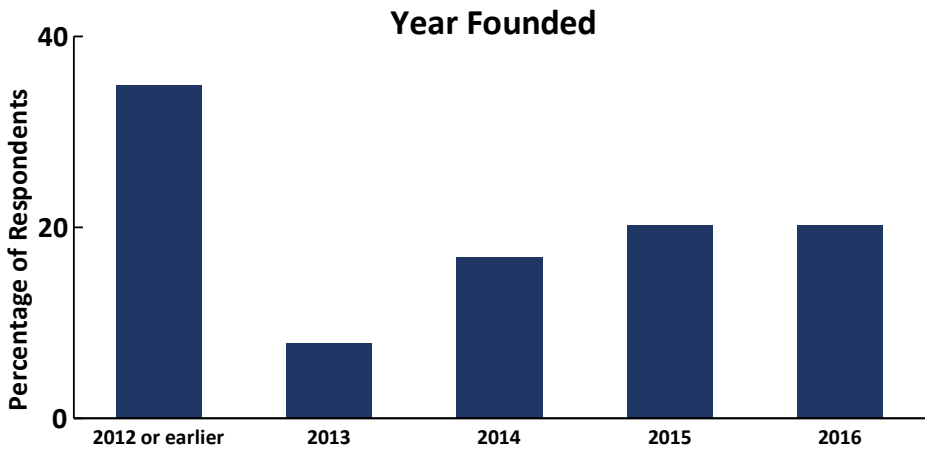

Figure 4.12

When was your company founded?

n=178

Findings:

- *57% of respondents reported that their company was founded in 2014 – 2016.*
- *35% of respondents reported that their company was founded in 2012 or earlier.*

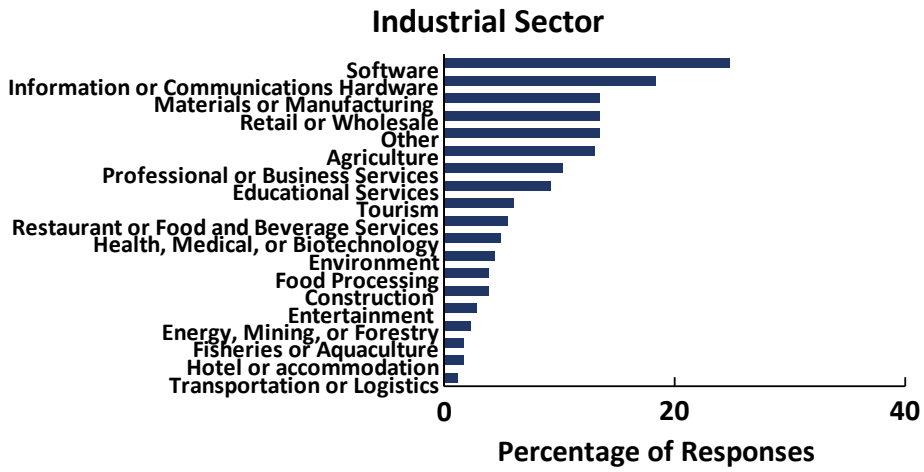

Figure 4.13

In what industrial sector does your company belong?

Please select all that apply.[3]

n=186

Findings:

- *25% of responses indicate companies belong in the software sector.*
- *18% of responses indicate companies belong in the information or communications hardware sector*

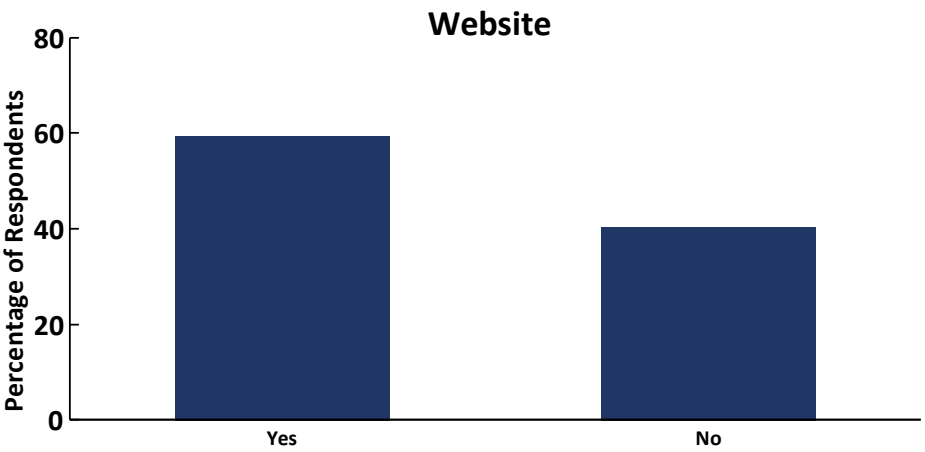

Figure 4.14

Does your company have a website?

n=178

Finding:

- *60% of respondents reported that their company has a website.*

[3] Respondents were asked to select all types of applicable sectors, therefore the percentages add up to a value greater than 100%.

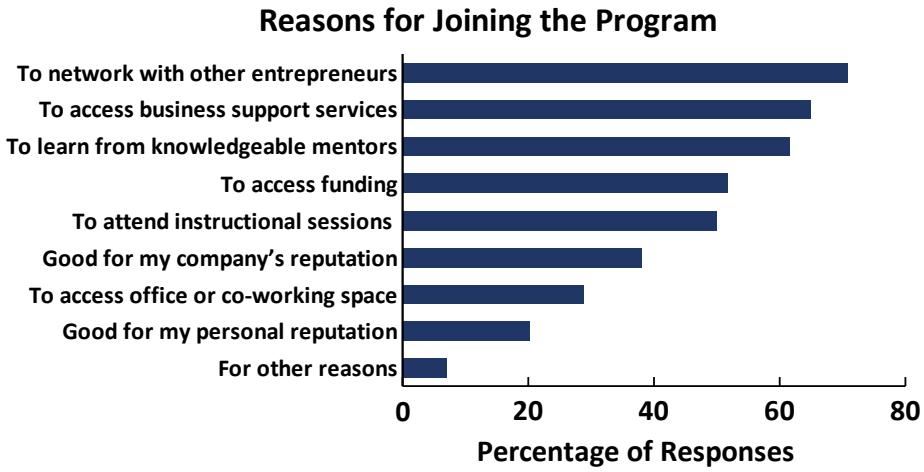

Figure 4.15

Why did you join [Program]?

Please select all that apply.[4]

n=174

Finding:

- *71% of responses indicate companies joined the program to network with other entrepreneurs.*

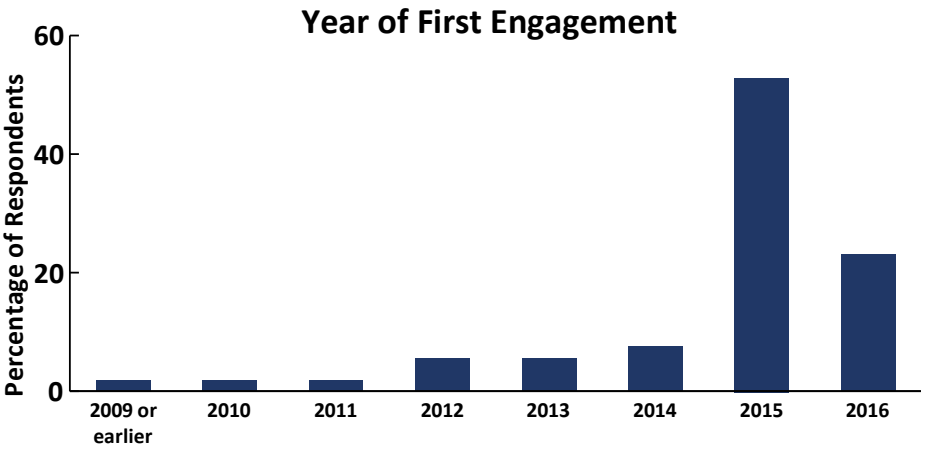

Figure 4.16

What was the year of your company's first engagement with [Program]?

n=161

Findings:

- *53% of respondents reported that their company first engaged with their program in 2015.*
- *23% of respondents reported that their company first engaged with their program in 2016.*

[4] Respondents were asked to select all types of applicable reasons for joining the program, therefore the percentages add up to a value greater than 100%.

Entrepreneur Characteristics of the Venture Support Program Participants in All Locations

The analysis of the demographics of the entrepreneurs of companies in all locations participating in the venture support programs revealed that:

- 62% of entrepreneurs are in the 26 – 40 year age category; 23% are 25 or under
- 71% are male
- 53% have a college or university certificate; 29% have a master's or PhD
- 60% have not studied or worked in a foreign country
- 82% did not have a family business
- 66% had an internship as a student; 58% of those that had an internship were employed by a private company
- 28% had more than 10 years of work experience prior to founding their company; 21% had none
- 35% have 1,000 or more Facebook friends; 53% have 100 – 999 Facebook friends

This section provides information about the entrepreneurs' age, gender, level of education, international experience, prior experience in family business, internship experience, prior work experience, and Facebook network. Figures describing the surveyed entrepreneurs follow, accompanied by the corresponding survey questions, number of respondents (n), and analysis findings. For each measure we first present the findings for the whole sample of the venture support program participants, followed by the charts and findings for each of the participating cities.

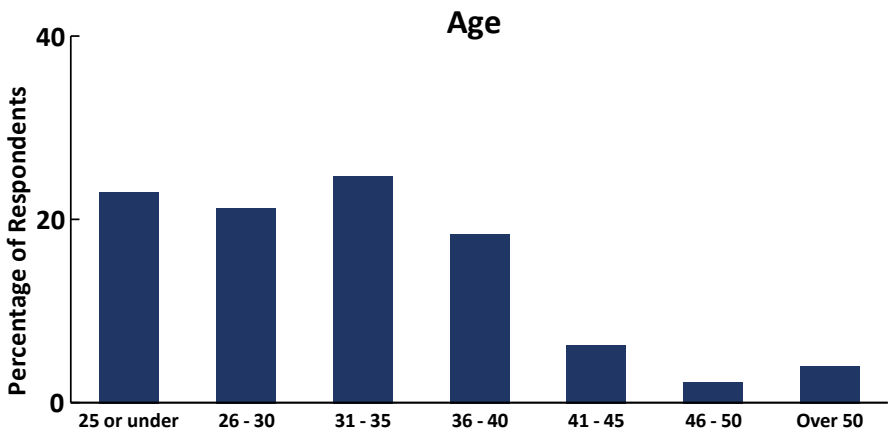

Figure 4.17

What is your age?

n=174

Findings:

- *62% of respondents reported that they are in the 26 – 40 year age category.*
- *23% of respondents reported that they are in the 25 or under age category.*

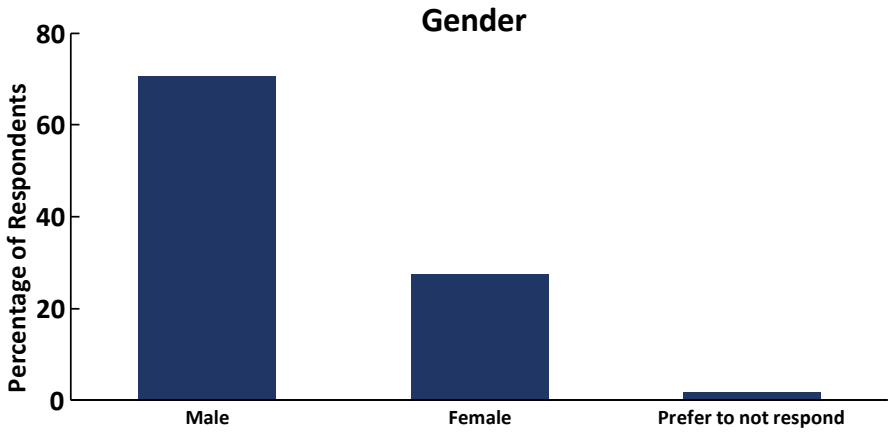

Figure 4.18

What is your gender?

n=174

Finding:

- *71% of respondents reported that they are male.*

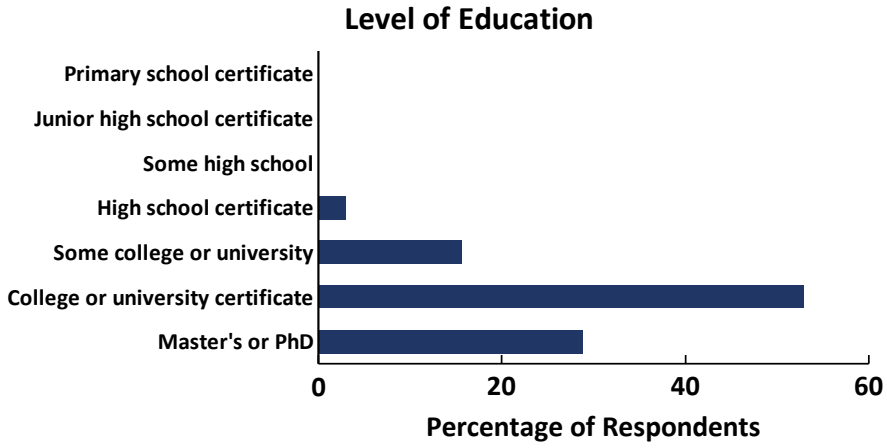

Figure 4.19

What is your highest level of education?

n=174

Findings:

- *53% of respondents reported that they have a college or university certificate.*
- *29% of respondents reported that they have a master's or PhD.*

Figure 4.20

Have you studied or worked outside of Vietnam?

Please select all that apply.[5]

n=174

Finding:

- *60% of respondents reported that they have not studied or worked in a foreign country.*

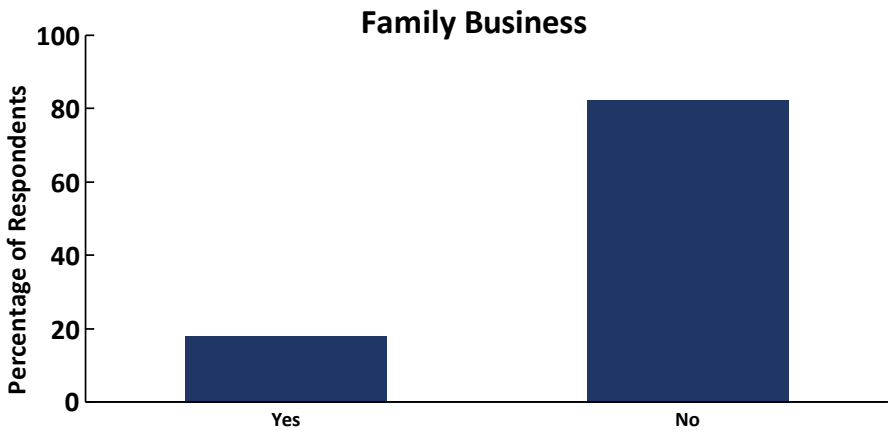

Figure 4.21

Did your parents own a business?

n=173

Finding:

- *82% of respondents reported that their parents did not own a business.*

[5] Respondents were asked to select all applicable responses, therefore the percentages add up to a value greater than 100%.

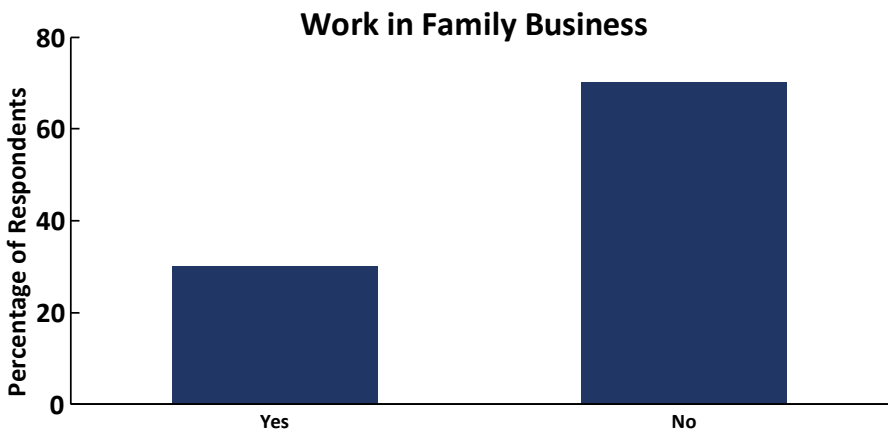

Figure 4.22

Did you work in your parents' business?

n=30

Finding:

- *70% of respondents that reported that their parents do own a business do not work in that business.*

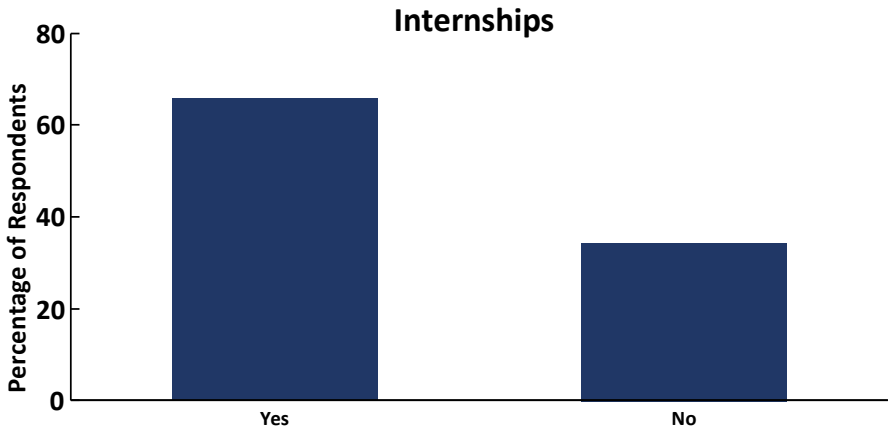

Figure 4.23

Did you have an internship as a student?

n=169

Finding:

- *66% of respondents reported that they had an internship as a student.*

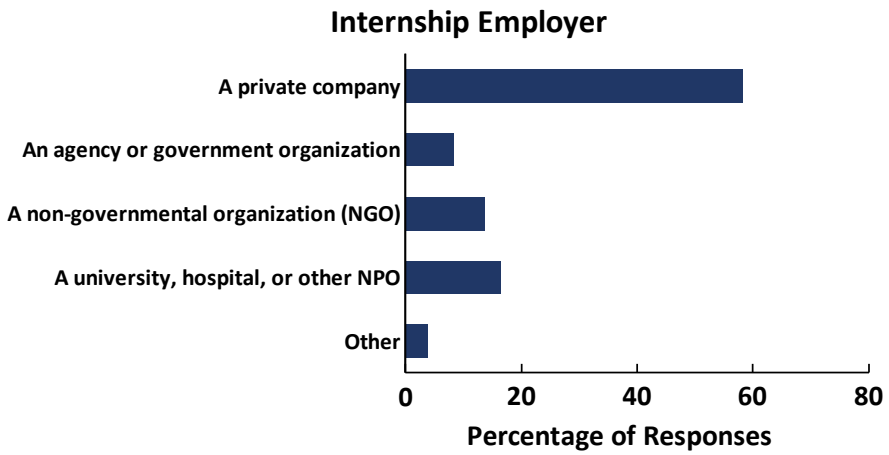

Figure 4.24

Please specify your internship employer.

n=110

Finding:

- *58% of respondents that reported they had an internship as a student specified a private company as their employer.*

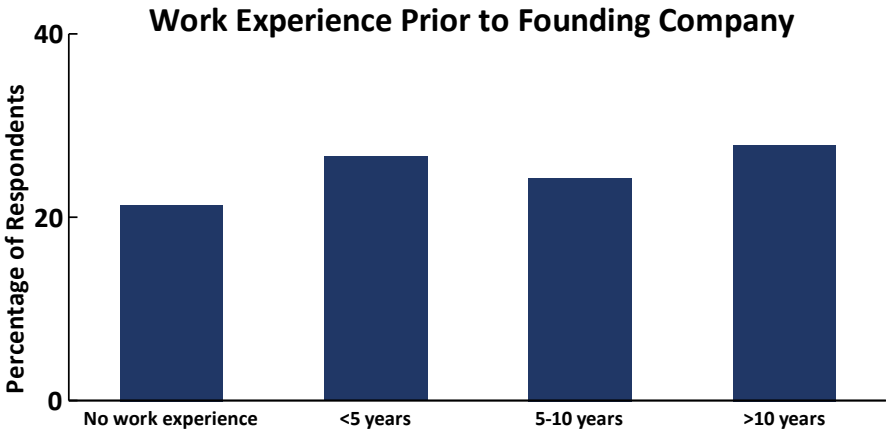

Figure 4.25

Before founding your company, how much work experience did you have?

n=169

Findings:

- *28% of respondents reported that they had more than 10 years of work experience prior to founding their company.*
- *21% of respondents reported that they had no work experience prior to founding their company.*

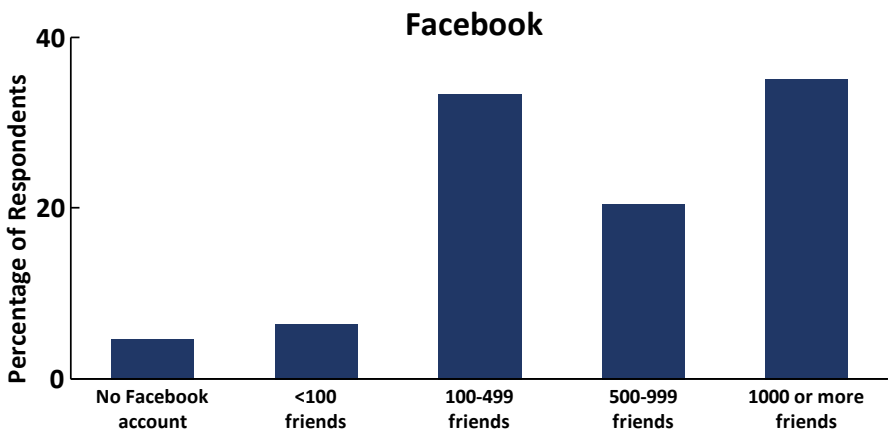

Figure 4.26

How many Facebook friends do you have?

n=171

Findings:

- *35% of respondents reported that they have 1,000 or more Facebook friends.*
- *53% of respondents reported that they have 100 – 999 Facebook friends.*

5. Use of Services by Venture Support Program Participants

94% of companies across all locations used the program support services (27% high intensity of use, 38% moderate intensity of use, 29% low intensity of use).

The venture support programs provide companies with a set of support services intended to enable companies to grow and succeed. These support services are described in greater detail in Table 5.1.

Table 5.1 Support Services Offered

Location	Program	Support Services Offered
Phnom Penh	Emerging Markets	- Provision of management, financial, and legal advice - Mentorship and guidance - Facilitation of financing - Analytical support
	Ministry of Commerce 101 program	- Mentorship and coaching - Boot camp entrance program - Facilitation of financing - Networking and events - Promotion opportunities
	National Business Plan Competition	- Workshops and training programs - Leadership camp - Networking and events - Online learning forum
	WECREATE	- Business building programs - Facilitation of financing - Networking and events (workshops, training, etc.) - Mentorship and coaching
	NOMI Network	- Technical training - Improved market access
Da Nang	Da Nang Business Incubator	- Mentorship and coaching - Facilitation of financing - Prototype development support - Networking and events
	College of Information Incubator	- Mentorship and coaching - Facilitation of financing - Provision of training - Networking and events
	Da Nang SME Association	- Regulatory guidance - Assistance with business registration, tax procedures, and contract dispute resolution - Networking and events

Table 5.1 (Continued)

Location	Program	Support Services Offered
Ho Chi Minh City	Agri Business Incubator	- Access to facilities and equipment
	Business Incubation and Innovation Center – Nguyen Tat Thanh University	- Networking and events - Workshops - Mentorship and coaching
	Nong Lam University – Center for Technology Business Incubation	- Research and transfer advanced technology on agriculture, forestry and fishery, environment and natural resources - Organizing technical training courses for students, technicians and extension staff - Demonstration projects - Scientific and technology services (e.g., information, consultancy, technology transfer)
	Saigon Hi-Tech Park – Incubation Center	- Mentorship and coaching - Facilitation of financing
	Information Technology Park – Vietnam National University in HCMC	- Mentorship and coaching - Facilitation of financing - Networking and events
	Quang Trung Software Business Incubation Center	- Access to facilities and equipment - Business development services
	Ho Chi Minh City University of Technology – Technological Business Incubator	- Networking and events - Training program - Facilitation of financing
	Business Startup Support Centre	- Mentorship and coaching - Training - Provision and facilitation of financing - Trade promotion - Networking and events - Access to facilities and equipment

Respondents were asked to rate the support services of the venture support programs in terms of their intensity of use. All of the venture support programs are categorized as either full-time, (that is, provision of full-time Mentoring, Networking, Instruction, Working space, Access to funding, and Business support services), or training programs. In terms of full-time programs, respondents were asked to indicate their intensity of use of services on a four-point scale from 'did not use' (coded as 1) to 'high intensity' (coded as 4). In terms of training programs, respondents were asked to indicate their degree of participation in training sessions on a four-point scale from 'did not participate' (coded as 1) to 'fully participated' (coded as 4).

For full-time programs, the combined intensity of use of support services variable is calculated as the average of Mentoring, Networking, Instruction, Working space, Access to funding, and Business support services. For training programs, the combined intensity of use of support services variable is calculated based on the degree of participation in training sessions.

Figure 5.1 shows a comparison of the intensity of use responses given for full-time and training programs, for each of the venture support programs.

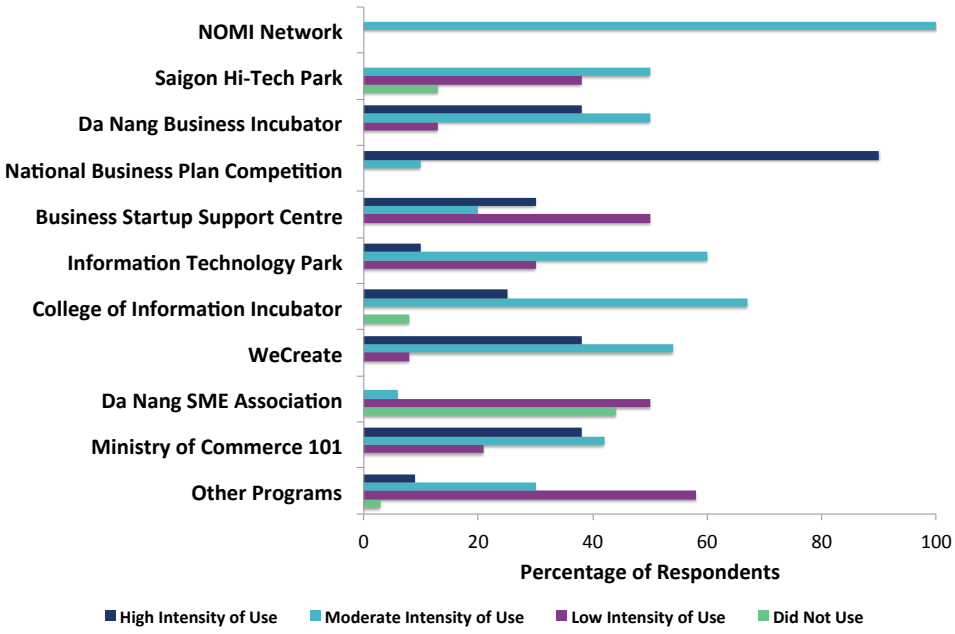

Figure 5.1

Figure 5.2 shows the responses given, and the number of responses ('n') for the use of full-time support services, and training programs.

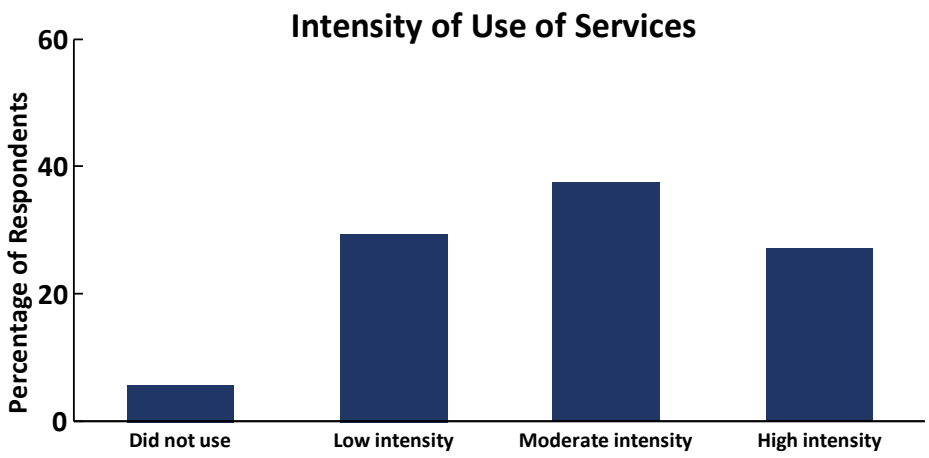

Figure 5.2

Please assess your company's intensity of use of the program support services.

n=173; Average=7.2

Finding:

- *94% of respondents reported that their company used the program support services (27% high intensity of use, 38% moderate intensity of use, 29% low intensity of use).*

Satisfaction with Support Services

93% of companies across all locations were satisfied with the program support services (30% highly satisfied, 63% somewhat satisfied).

Respondents who completed the survey were asked about their degree of satisfaction with the support services provided by the venture support programs. Figure 5.3 shows the responses given, and the number of responses ('n') for the question.

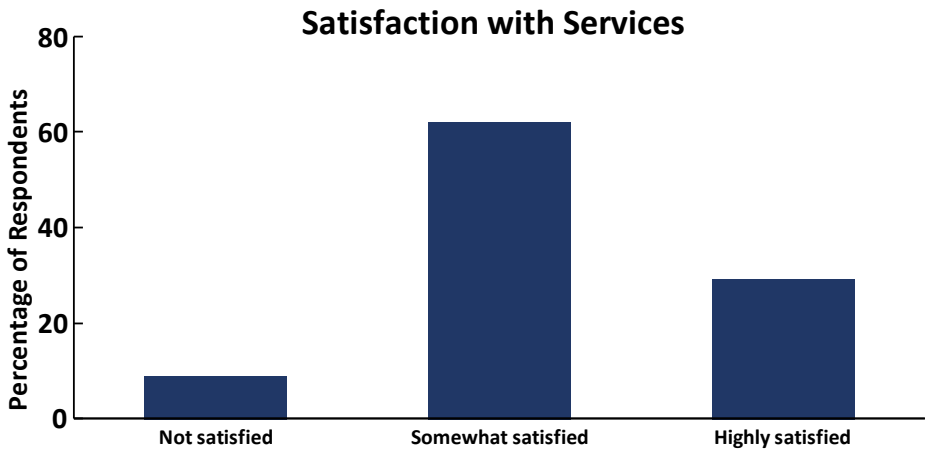

Figure 5.3

To what degree are you satisfied with the services provided?

n=101: Average=6.1

Finding:

- *93% of respondents reported that they were satisfied with the program support services (30% highly satisfied, 63% somewhat satisfied).*

Predictors of Intensity of Use of Support Services

To better understand the characteristics and behaviours of supported companies that used support services in all cities, we conducted statistical examinations of the relationships between intensity of use of services, and predictors of the intensity of use[6].

We consider four types of predictors of the intensity of use of services as independent variables:

- Company attributes (C)
- Entrepreneur attributes (E)
- Satisfaction with services provided by venture support programs [7]
- Reasons to join in the venture support programs (R)[8]

From this analysis we find that companies that joined in the venture support programs for the purpose of networking and learning (e.g. mentors, instructional sessions) are more likely to use the support services with a higher intensity, while companies that joined in the programs for access to office space are less likely to use the support services or use the services with a lower intensity. This finding indicates that the venture support programs are more attractive to entrepreneurs and companies for the purposes of networking and learning compared to access to office space.

Additionally, in the paragraph below, we present details that show companies with plans for modest growth or sustained operations, companies that have less employees with international displacement experience, and companies that founded by entrepreneurs with more Facebook friends are more likely use the support services with higher intensity.

Model 1 below regresses company attributes, entrepreneur attributes, satisfaction variables, and reasons to join in the programs against intensity of use services. Details on Model 1 may be found in Table 2 below.

Specifically, Model 1 explains 25% of the variance in the dependent variable, *Intensity of use of services*. Model 1 shows that *Networking, and Learning* are significantly associated with *Intensity of use of services* (significant at the 95% confidence level, and at the 90% confidence level respectively), indicating that companies that joined in the programs for networking and learning purpose and more likely to use support services with a higher intensity. Moreover, *Access to office space* is significant and negatively associated with *Intensity of use of services* (significant at the 95% confidence level), indicating that companies that joined in the programs for access to office space are less likely to use support services or use services with a lower intensity. Of the company attributes variables, *Growth plan,* and *International displacement experience of employee* are significantly and negatively associated with *Intensity of use of services* (both significant at the 90% confidence level), indicating that companies with plans for modest growth or sustained operations, and companies that have less employees that have international displacement experience are more likely to use the services with a higher intensity. Of the entrepreneur attributes variables, *Facebook friends* is significantly associated with *Intensity of use of services* (significant at the 95% confidence level), indicating that companies that founded by entrepreneurs with more Facebook friends are more likely to use services with a higher intensity.

---

[6] Companies that engaged with the Da Nang SME Association are excluded from the analysis sample.
[7] Respondents were asked to indicate their satisfaction with the services provided by the venture support programs on a three-point scale from 'Not satisfied' (coded as 0) to 'Highly satisfied' (coded as 2).
[8] We include five dummy variables as reasons to join in the programs: 1) Networking, 2) Access to office space, 3) Learning, 4) Access to funding, and 5) Business support services.

Table 5.2 Predictors of Intensity of Use of Support Services[9]

Variable	Model 1 Intensity of Use of Services
C: Age	
C: Size	
C: Growth plan	- α
C: Funding received ($)	
C: International displacement of employees	- α
C: Domestic displacement of employees	
C: Employees that are family members	
C: Employees that have university degrees	
C: Website	
E: Age	
E: Gender (male)	
E: Parents that own a business	
E: Level of education	
E: Work experience (years)	
E: International experience	
E: Facebook friends	+ α
Satisfaction with services	
R: Networking	+*
R: Access to office space	-*
R: Learning	+ α
R: Access to funding	
R: Business support services	
Model Characteristics	
Total N	138
Adjusted R^2	.25
F (dof)	*** (20)

dof = Degrees of freedom α = p < .1, * = p < .05, ** = p < .01, *** = p < .001

[9] Companies that engaged with the Da Nang SME Association are excluded from the analysis sample.

6. Impact on Resources and Capabilities of Venture Support Program Participants

A Note About Statistical Significance

In statistics, confidence levels tell us how likely it is that a pattern in the data is due to chance. For example, in our analysis, when we present findings that are 'significant at the 95% confidence level', we are explaining that the pattern we see in the data (the finding we present) has a 95% likelihood of being true, and only a 5% (100% - 95%) likelihood of being due to chance. Higher confidence levels (e.g., 99%) mean the pattern in the data is more likely true, and not due to chance.

Overall company respondents across all locations attributed the greatest average impact to the venture support programs on improvements to their companies' *Business expertise* and *Business network expansion,* and lower impact on improvements to *Knowledge of customer needs.*

The average impact of the venture support programs on the resources and capabilities of companies across all locations is greater for companies that were founded in 2016, have 35% or more of their founders and employees with domestic displacement experience, have less than 35% of their founders or employees that are family members, have more than 65% of their founders or employees with university degrees, are pre-revenue, or have revenues of less than $50K USD, and have received financing.

The average impact of the venture support programs on the resources and capabilities of companies across all locations is also greater for companies with entrepreneurs that are younger than 25, had an internship, are male, have a high school certificate, or have taken some, or completed college or university, and did not have any work experience, or had less than five years of work experience prior to founding the company.

Further, the average impact on companies' resources and capabilities across all locations is greater for companies that used the support services with 'moderate' or 'high' intensity.

Following our logic model approach for assessment of impact, the venture support programs achieve impact on company performance by helping to improve companies' resources and capabilities. This improvement to the resources and capabilities of companies is the direct impact of the venture support programs, achieved through the various support services available to companies.

Table 6.1 shows the three resources and capabilities impact measures that were selected using TEN's methodology to assess the venture support programs' impact on improvements to companies' resources and capabilities[10]. For convenience, explanatory examples may also be found in Table 6.1.

[10] Companies that engaged with the Da Nang SME Association were excluded from the analysis sample.

Table 6.1 Resources and Capabilities Impact Measures and Associated Examples

Impact Measure	Examples
Business expertise	• *Business models, or business plans, marketing and sales strategies, stakeholder relations, financing strategies, or corporate growth strategies* • *New marketing or organizational methods in business practices, workplace organization, or external relations* • *Expansion of the scale of operations, diversification into new product lines, or expansion of industrial or geographic markets*
Business network expansion	• *Access to customers, suppliers, manufacturers, business partners, service providers, channel to market partners, or other relevant businesses in Finland or abroad* • *Access to, or better understanding of, industrial knowledge, new devices, products, or services* • *Access to key persons in large companies*
Knowledge of customer needs	• *Knowledge of customer needs* • *Knowledge of how to access customers, domestically, or abroad*

Figure 6.1 shows the average impact responses for the three resources and capabilities impact measures.[11] Reading clockwise, we can see that the average impacts on resources and capabilities are at the upper end of the 'a little' impact range on improvements to all three resources and capabilities measures. This suggests that the venture support programs have similar average impact on improvements to companies' ability to make gain business expertise, expand their business networks, and learn about their customers.

[11] For resources and capabilities, impact is measured on a scale of 0 to 10 using the following weights: 'No impact' 0, 'a little' impact 5.0, 'a lot' of impact 10.

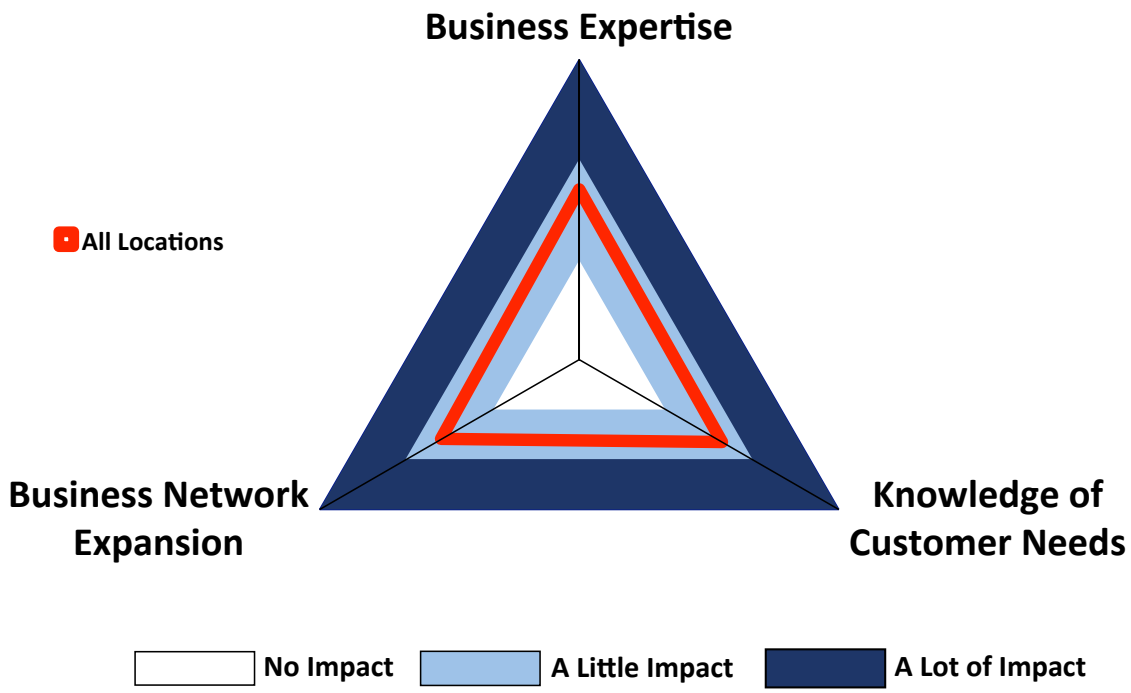

Figure 6.1 Average Impact of the Venture Support Programs on Companies' Resources and Capabilities

We also seek to understand the distribution of scores around the averages reported above to validate the importance of the three resources and capabilities impact measures. We determined the percentage of respondents who reported positive impact on their company's resources and capabilities (i.e., 'A Lot' of impact, or 'A Little' impact).

Figure 6.2 shows the percentage of companies that attributed positive impact for the three resources and capabilities impact measures. We see in Figure 6.2 that while the total percentage of positive impact is approximately equal, more clients attributed 'A Lot' of impact on their *Knowledge of customer needs* measure.

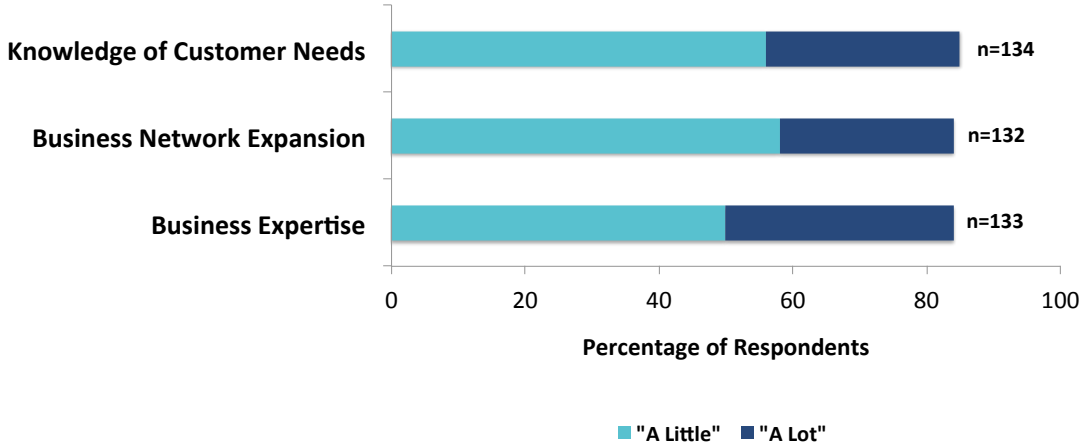

Figure 6.2 Percentage of Companies Attributing Positive Impact on their Resources and Capabilities

Respondents from all locations reported the following impacts on improvements to their companies' resources and capabilities to be 'A Lot', or 'A Little':

- *Knowledge of customer needs (85% positive impact)*
  (29% 'A Lot', 56% 'A Little)

- *Business expertise (84% positive impact)*
  (34% 'A Lot', 50% 'A Little)

- *Business network expansion (84% positive impact)*
  (26% 'A Lot', 58% 'A Little)

The frequency distributions that follow, Figures 6.3 to 6.5 show impact responses for the three resources and capabilities impact measures, together with the corresponding survey questions, number of respondents, and average impact scores (out of 10).

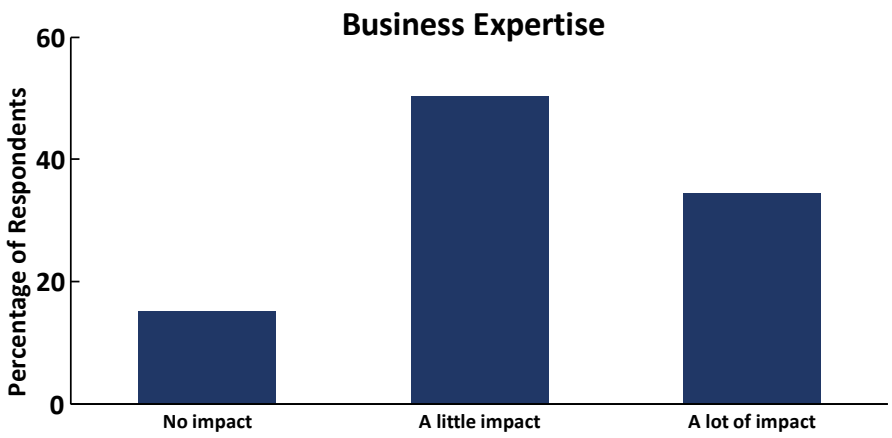

Figure 6.3

As a consequence of [Program], has your company's business expertise increased?

n=157; Average=6.0

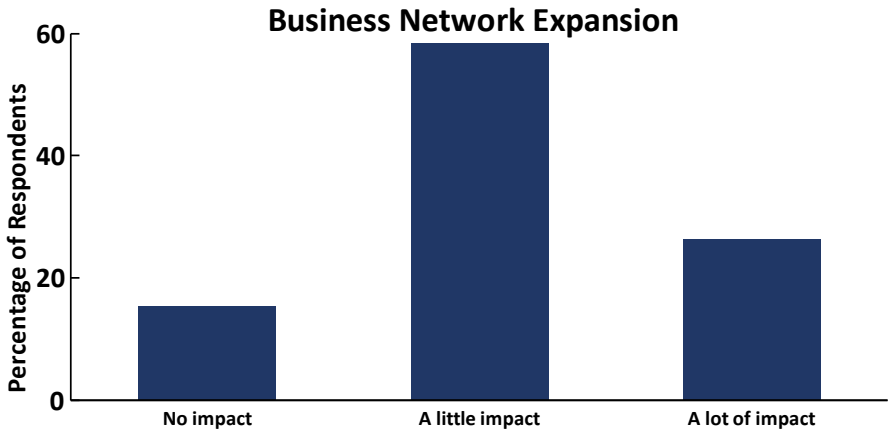

Figure 6.4

As a consequence of [Program], has your company's business network increased?

n=156; Average=5.5

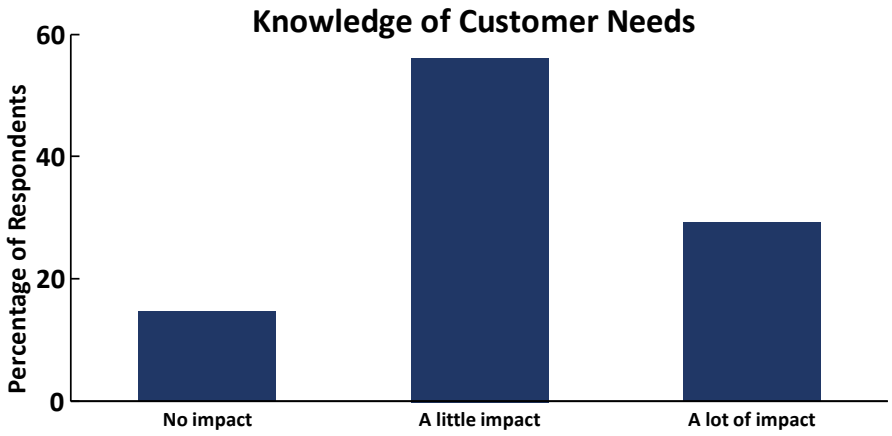

Figure 6.5

As a consequence of [Program], has your company's knowledge of customer needs increased?

n=157; Average=5.7

Impact of the venture support programs on company resources and capabilities was further analyzed with respect to company information, entrepreneur information, and intensity of use of support services.

The Venture Support Programs' Impact: Company Attributes

All Locations

From the information segmented by company attributes, for all locations, we find that:

- The average impact on companies' resources and capabilities is greater for those that were founded in 2016, compared to those that were founded in 2015 or earlier (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for those with 35% or more of their founders or employees with domestic displacement experience, compared to those with less than 35% (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for companies with less than 35% of their founders or employees that are family members, compared to those with 35% or more (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for companies with more than 65% of their founders or employees that have university degrees, compared to those with 65% or less (significant at the 99% confidence level).

- The average impact on companies' resources and capabilities is greater for companies that are pre-revenue, or have revenues of less than $50K, compared to those with revenues of $50K or more (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for companies that received financing, compared to those that did not receive financing (significant at the 99% confidence level).

The Venture Support Programs' Impact: Entrepreneur Attributes

From the information segmented by entrepreneur attributes, for all locations, we find that:

- The average impact on companies' resources and capabilities is greater for companies with entrepreneurs that are 25 or under, compared to those with entrepreneurs that are older than 25 (significant at the 99% confidence level).

- The average impact on companies' resources and capabilities is greater for companies with entrepreneurs that are male, compared to those with entrepreneurs that are female (significant at the 99% confidence level).

- The average impact on companies' resources and capabilities is greater for companies with entrepreneurs that have a high school certificate, or have taken some, or completed, college or university, compared to those with entrepreneurs that have a master's or PhD (significant at the 99% confidence level).

- The average impact on companies' resources and capabilities is greater for companies with entrepreneurs that had an internship, compared to those with entrepreneurs that did not have an internship (significant at the 99% confidence level).

- The average impact on companies' resources and capabilities is greater for companies with entrepreneurs that did not have any work experience, or had less than five years of work experience prior to founding the company, compared to those with entrepreneurs that had five to ten years of experience (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for companies with entrepreneurs that have not studied or worked in a foreign country, compared to those with entrepreneurs that have studied or worked in a foreign country (significant at least at the 95% confidence level).

The Venture Support Programs' Impact: Intensity of Use of Services

From the information segmented by intensity of use of the support services provided by the venture support programs, for all locations, we find that:

- The average impact on companies' resources and capabilities is greater for companies that used the support services with moderate or high intensity compared to companies that used the services with low intensity, or did not use the services (significant at the 99% confidence level).

Figure 6.6 compares the average impact attributed by respondents on their companies' resources and capabilities against intensity of use of each of the individual support services. We can see that in general, average impact on resources and capabilities increases with the intensity of use of each support service.

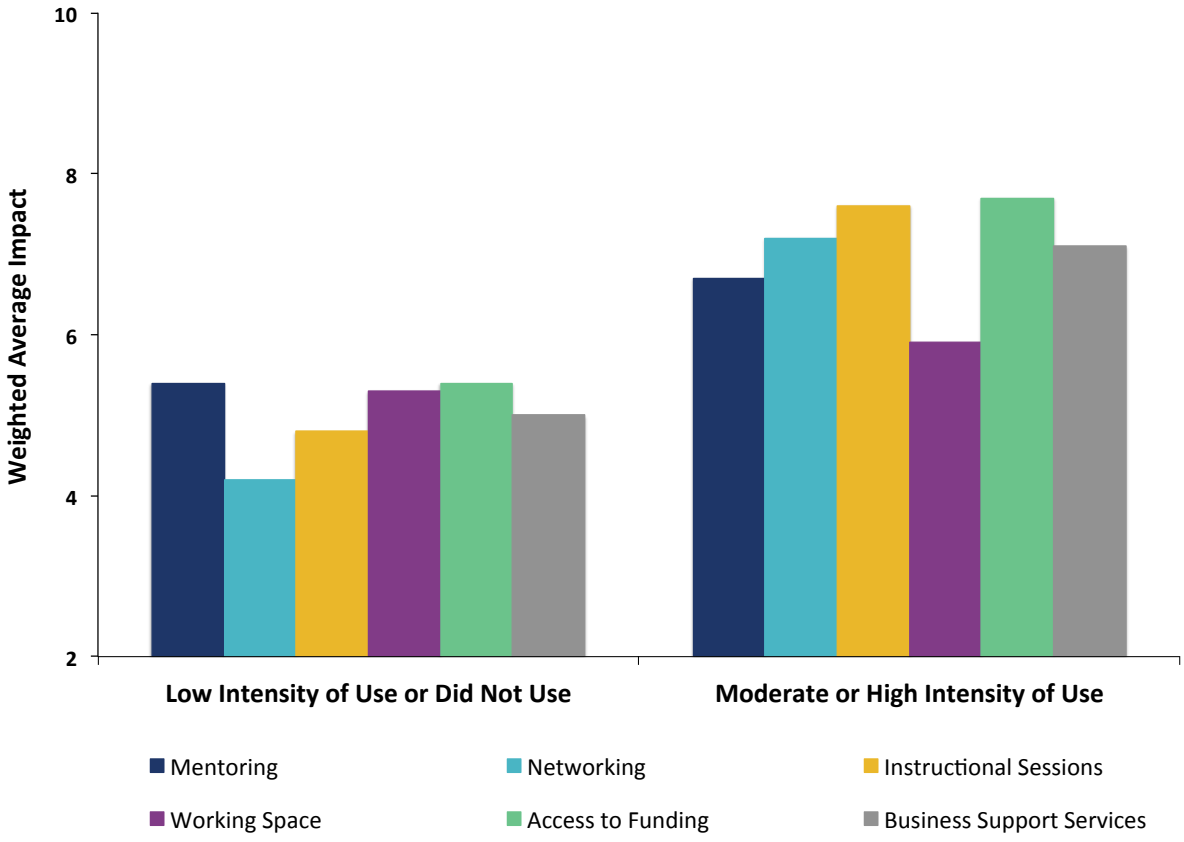
10
8
6
4
2
Weighted Average Impact
Low Intensity of Use or Did Not Use
Moderate or High Intensity of Use
Mentoring
Networking
Instructional Sessions
Working Space
Access to Funding
Business Support Services

Figure 6.6

7. Impact on Performance of Venture Support Program Participants

Overall, the analysis indicates that the average impact of the venture support programs was highest in terms of improvements to companies' *Change in employment*, and *Change in annual revenues* measures, and lower in terms of improvements to companies' *Funding received* measure.

The average impact of the venture support programs on improvements to company performance is higher for companies that first engaged with the programs in 2014 or earlier, were founded in 2014 or earlier, generate revenues, have modest or high growth plans, and have received financing.

The average impact of the venture support programs on improvements to company performance is also higher for companies with entrepreneurs that are 25 or under, do not have a family business, did not have any work experience prior to founding the company, and have not studied or worked in a foreign country.

Further, the average impact on companies' performance is greater for those that used the support services with any intensity, compared to those that did not use the support services.

Following our logic model approach for assessment of innovation impacts, the venture support programs achieve long-term impacts in the form of socio-economic benefits by helping companies to improve their performance. Measuring impact on companies' performance is important because it corresponds to the venture support programs' mission and provides the hard evidence that stakeholders seek. However, company performance depends on a number of factors and so to assess impact on performance we consider both the change in company performance and the degree to which the change is attributable to the venture support programs. Company performance improvements occur as a consequence of the impact that the venture support programs have on improving companies' resources and capabilities.

Table 9.1 shows the three performance impact measures that were selected to assess the venture support programs' impact on company performance. [12]

Table 7.1

Performance Measures
• *Change in annual revenues*
• *Change in employment*
• *Funding received*

[12] Companies that engaged with the Da Nang SME Association were excluded from the analysis sample.

Figure 7.1 shows the average impact responses for the three performance impact measures.[13] Reading clockwise, we can see that the average impacts on performance are at the low end of the 'a little' impact range on improvements to the *Change in annual revenues* measure, at the top end of the 'no impact' range on improvements to the *Change in employment* measure, and at the middle of the no impact measure for the *Funding received* measure. This suggests that among the three company performance impact measures, the venture support programs have the greatest average impact on improvements to companies' ability to increase their annual revenues.

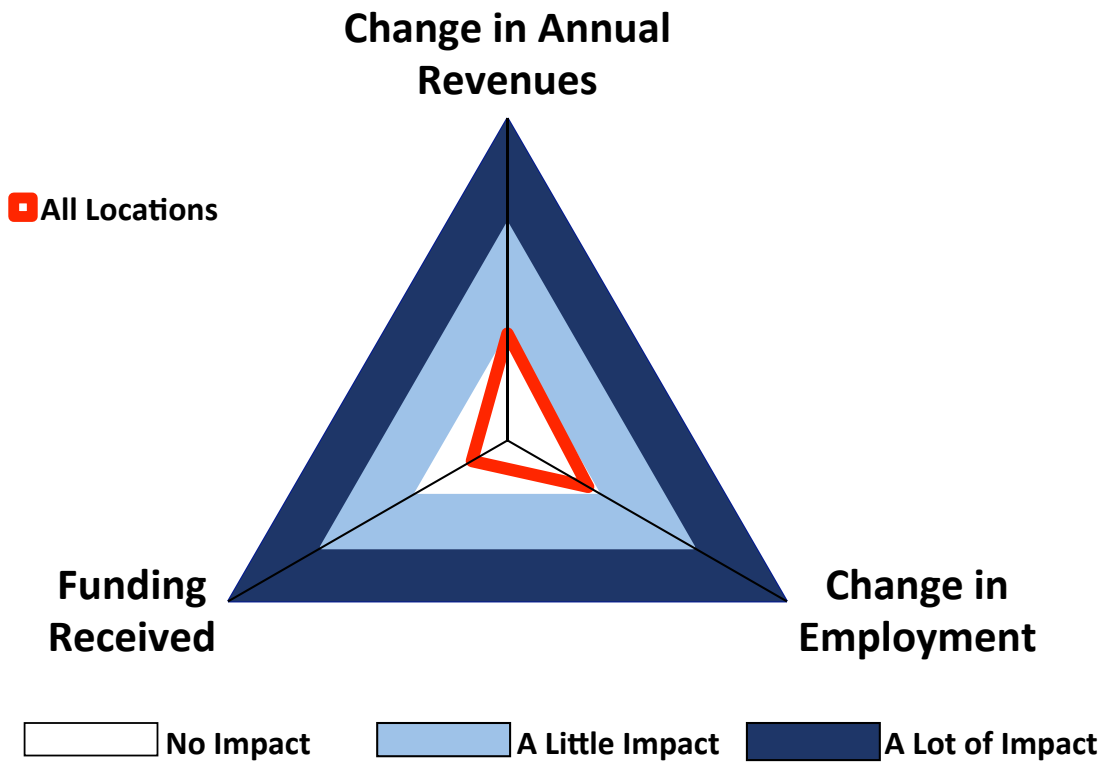

Figure 7.1 Average Impact of the Venture Support Programs on Companies' Performance

We tested for significant differences among the measures, and found that companies attributed higher impacts to the venture support programs in terms of the *Change in annual revenues,* and *Change in employment* measures, compared to the *Funding received* performance measure (significant at the 99% confidence level).

We also seek to understand the distribution of scores around the averages reported above to validate the importance of the three performance impact measures. We determined the percentage of respondents who reported positive impact on their company's performance (i.e., 'A Lot' of impact, or 'A Little' impact).

[13] For performance, impact is measured on a scale of 0 to 10 using the following weights: 'No impact' 0, 'a little' impact 5.0, 'a lot' of impact 10.

Figure 7.2 shows the percentage of companies that attributed positive impact for the three performance impact measures. We see in Figure 7.2 that a greater percentage of companies attribute positive impact on their *Change in annual revenues* measure.

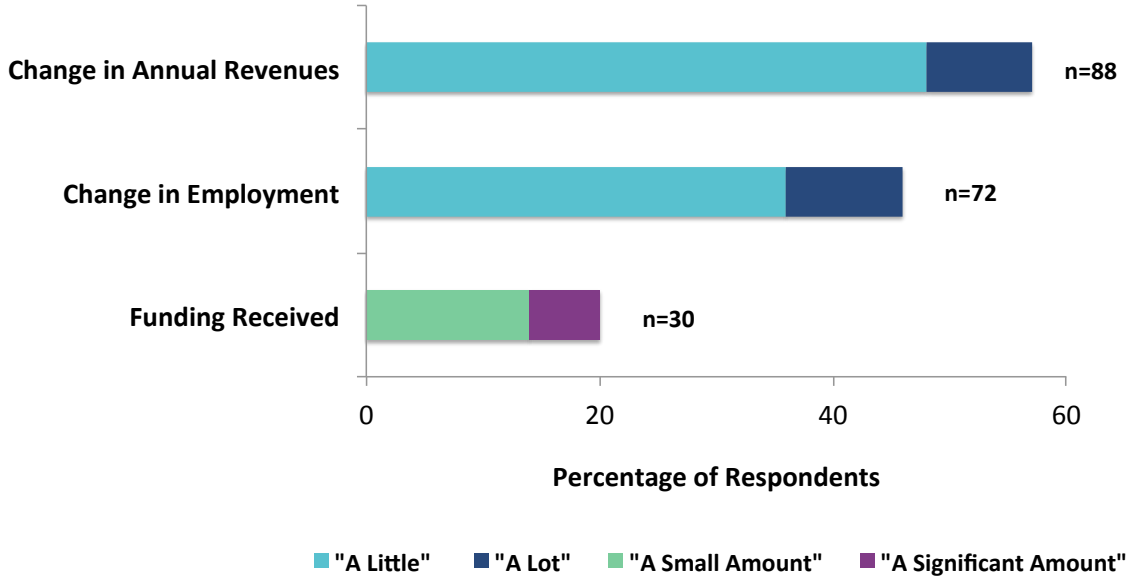

Figure 7.2 Percentage of Companies Attributing Positive Impact on their Performance

Respondents from all locations reported the following impacts on improvements to their companies' performance to be 'A Lot', or 'A Little', and in the case of *Funding received*, 'A significant amount', or 'A small amount':

- *Change in annual revenues (57% positive impact)*
  (9% 'A Lot', 48% 'A Little)

- *Change in employment (46% positive impact)*
  (10% 'A Lot', 36% 'A Little)

- *Funding received (20% positive impact)*
  (6% 'A significant amount', 14% 'A small amount')

The frequency distributions that follow, Figures 7.3 to 7.5 show impact responses for the three performance impact measures, together with the corresponding survey questions, number of respondents, and average impact scores (out of 10).

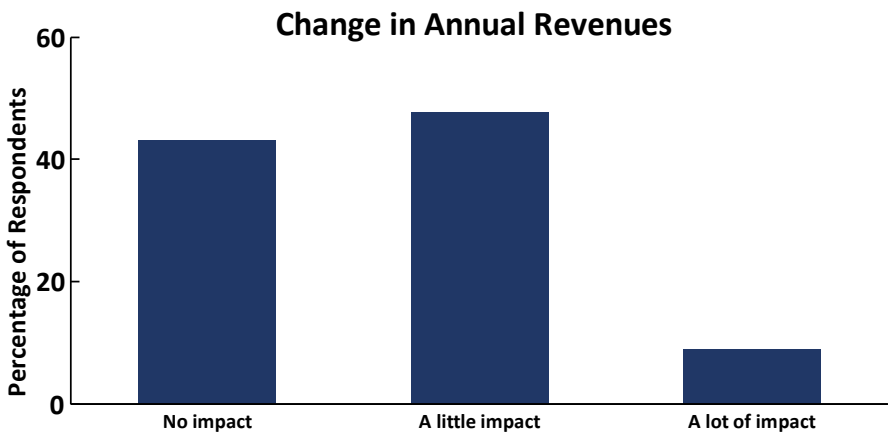

Figure 7.3

As a consequence of [Program], have your company's annual revenues increased?

n=155; Average=3.3

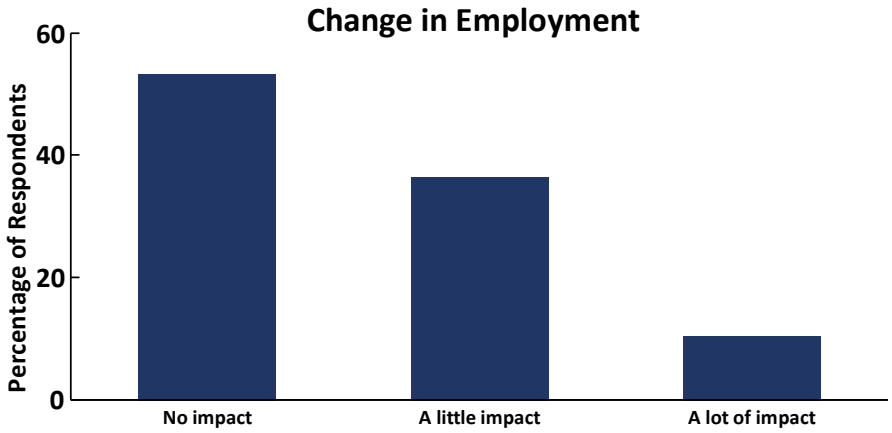

Figure 7.4

As a consequence of [Program], has your company's number of employees increased?

n=154; Average=2.9

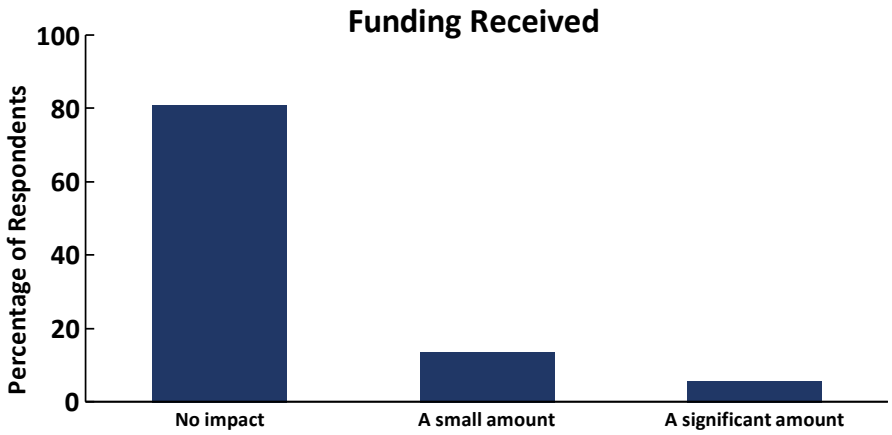

Figure 7.5

As a consequence of [Program], has your company received funding?

n=155; Average=1.3

Impact of the venture support programs on company performance was further analyzed with respect to company information, entrepreneur information, and intensity of use of support services.

The Venture Support Programs' Impact: Company Attributes

From the information segmented by company attributes, for all locations, we find that:

- The average impact on companies' performance is greater for companies that first engaged in 2014 or earlier, compared to those that first engaged in 2015 or 2016 (significant at the 99% confidence level).

- The average impact on companies' performance is greater for companies that were founded in 2014 or earlier, compared to those that were founded in 2015 or 2016 (significant at the 99% confidence level).

- The average impact on companies' performance is greater for companies that generate revenues, compared to those that do not generate revenues (significant at the 99% confidence level).

- The average impact on companies' performance is greater for companies with modest or high growth plans, compared to those that have lower or no growth plans (significant at the 99% confidence level).

- The average impact on companies' performance is greater for companies that have received financing, compared to those that have not received financing (significant at the 95% confidence level).

The Venture Support Programs' Impact: Entrepreneur Attributes

From the information segmented by entrepreneur attributes, for all locations, we find that:

- The average impact on companies' performance is greater for companies with entrepreneurs that are 25 or under, compared to those with entrepreneurs that are 36 or older (significant at least at the 95% confidence level).

- The average impact on companies' performance is greater for companies with entrepreneurs that do not have a family business, compared to those with entrepreneurs that have a family business (significant at the 95% confidence level).

- The average impact on companies' performance is greater for companies with entrepreneurs that did not have any work experience prior to founding the company, compared to those with entrepreneurs that had ten years or less of experience (significant at the 95% confidence level).

- The average impact on companies' performance is greater for companies with entrepreneurs that have not studied or worked in a foreign country, compared to those with entrepreneurs that have studied in a foreign country (significant at the 99% confidence level).

Figure 7.6 compares the average impact attributed by respondents on their companies' performance against intensity of use of each of the individual support services. We can see that in general, average impact on performance increases with the intensity of use of each support service.

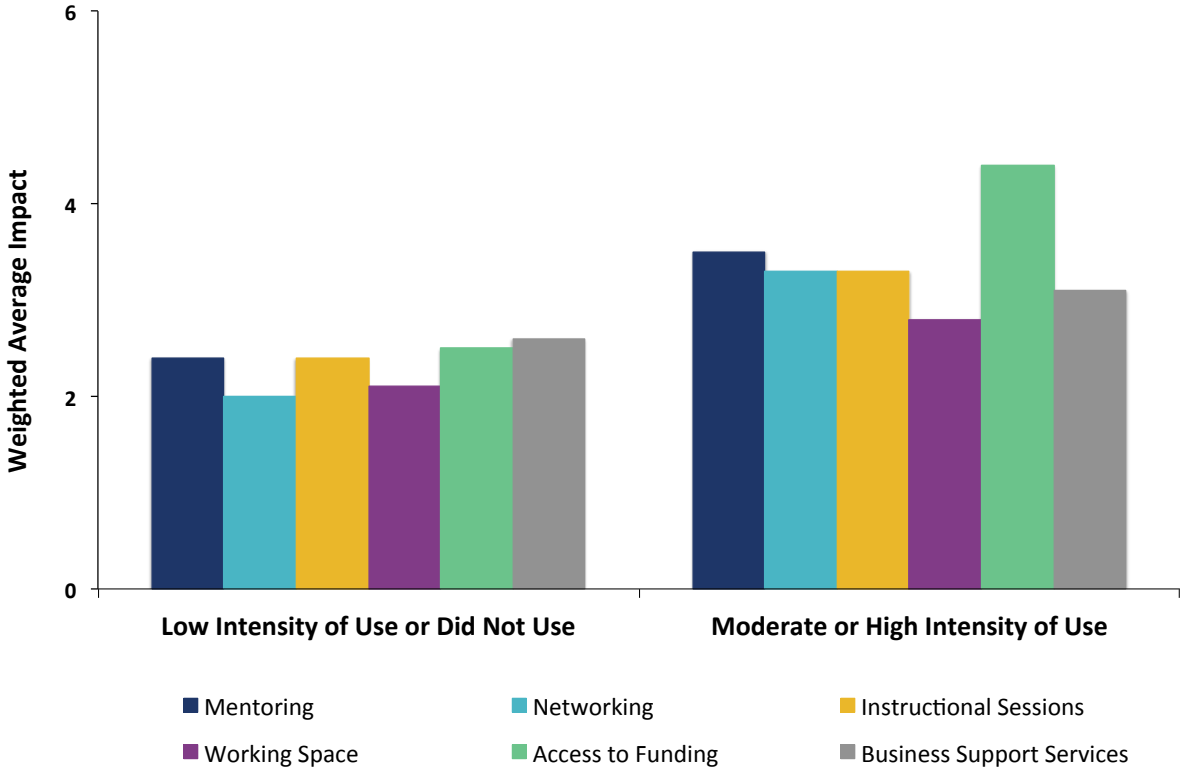

Figure 7.6

8. Predictors of Selection for Support

Smaller companies, companies that have more employees with displacement experience, and companies that have a website are more likely to be selected for program support.

Additionally, companies that founded by younger entrepreneurs, that founded by entrepreneurs with a higher level of education, and that founded by entrepreneurs with more Facebook friends are more likely to be selected for program support.

Which Companies Are More Likely to be Supported?

This section considers the question of which companies are more likely to be selected for ADB support programs. Therefore, logistic regression was used to examine the relationships between program support and predictors of selection for support.[14]

For statistical analysis, we include program support as the dependent variable:

- Program support (y/n): indicates whether or not a company has been selected for ADB support programs.

We consider two kinds of predictors as independent variables:

- Company attributes, and
- Entrepreneur attributes.

In the following sections we describe our measures, and show the results of logistic regressions.

[14] Note that for this analysis the Da Nang SME Association was included with the random sample of young companies. In the interest of completeness, we have rerun this particular analysis, excluding the Da Nang SME Association entirely. The results were inconsequential and did not yield any significant changes.

Dependent Variables

Program support is included as the dependent variable:

- **Program support (y/n):** Indicates whether or not a company has been supported by ADB programs. It is a binary variable with a value of 1 if a company has been supported and 0 otherwise.

Independent Variables

We include company attributes, and entrepreneur attributes as independent variables:

Company attributes

- **Company age:** Indicates the company's age in years as of 2016 (all companies formed prior to 2012 were considered to be formed in 2012).
- **Size:** Respondents were asked to indicate their annual revenues on a seven-point scale from 'pre-revenue' (coded as zero) to '$1 million or more' (coded as $1.5 million). The mid-point values were used for the annual revenues responses. Respondents were also asked to indicate the number of founders, and number of employees, including full-time and part-time founders and employees (actual number). The number of founders and employees and the mid-point values for the annual revenues responses were multiplied to get an indicator of company size.
- **Growth plan:** Companies that have a clear and ambitious growth plan are expected to have greater motivation and confidence in improved company performance. Respondents were asked to indicate their company's growth plan as either 'lower growth plan' (coded as zero), 'no growth plan' (coded as 1), 'modest growth plan' (coded as 2), or 'high growth plan' (coded as 3).
- **Funding received ($):** Respondents were asked to indicate the amount of funding (e.g. grant, loan, equity investments, or competition prize) that their companies received in actual values ($).
- **Displacement experience of employees:** Respondents were asked to indicate how many founders and employees have worked or studied outside the town or city where they grew up on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4). Respondents were also asked to indicate how many founders and employees in their companies have worked or studied outside home country on a four-point scale from 'none' (coded as 2) to 'more than 65%' (coded as 8). Domestic displacement experience and international displacement experience were added together to calculate the Displacement experience of employees variable.
- **Employees that are family members:** Respondents were asked to indicate how many founders and employees in their companies are family members on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4).
- **Employees that have university degrees:** Respondents were asked to indicate how many founders and employees in their companies have college or university degrees on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4).
- **Website:** Respondents were asked to indicate if their companies have a website. If it a binary variable with a value of 1 if the company has a website and 0 otherwise.

Entrepreneur Attributes

- **Entrepreneur age:** Entrepreneurs were asked to indicate their age on a seven-point scale from '25 or under' (coded as 1) to 'over 50' (coded as 7).
- **Gender (male):** Entrepreneurs were asked to indicate their gender. It is a binary variable with a value of 1 if the entrepreneur is male and 0 otherwise.
- **Parents that own a business:** Entrepreneurs were asked to indicate if their parents own a business. It is a binary variable with a value of 1 if the entrepreneur's parents own a business and 0 otherwise.
- **Level of education:** Entrepreneurs were asked to indicate their highest level of education on a seven-point scale from 'primary school certificate' (coded as 1) to 'Masters or PhD' (coded as 7).
- **Work experience:** Entrepreneurs were asked to indicate their work experience before founding a company on a four-point scale from 'no experience' (coded as 0) to 'more than 10 years' (coded as 15).
- **International experience:** Entrepreneurs were asked to indicate if they have worked or studied in a foreign country. It is a binary variable with a value of 1 if the entrepreneur had international experience and 0 otherwise.
- **Website:** Entrepreneurs were asked to indicate if their companies have a website. It is a binary variable with a value of 1 if the company has a website and 0 otherwise.
- **Facebook friends:** Entrepreneurs were asked to indicate their Facebook friends on a five-point scale from 'no Facebook account' (coded as 0) to 'more than 1,000 friends' (coded as 1,500).

Logistic Regression Model Results

Logistic regression was used to assess which company attributes, and entrepreneur attributes are predictors of selection for support. Table 6.1 presents logistic regression against program support, based on the sample of all companies.

In Table 8.1 Model 1, which includes the company attributes and entrepreneur attributes, explains 40% of the variance in the dependent variable, *Program support.* Of the company attributes variables, *Size* is significantly and negatively associated with *Program support* (significant at the 90% confidence level), indicating that smaller companies are more likely to be supported by programs. *Displacement experience of employees* is significantly associated with *Program support* (significant at the 99.9% confidence level), indicating that companies that have more employees with domestic and international displacement experience are more likely to be supported by programs. *Website* is significantly associated with *Program support* (significant at the 99% confidence level), indicating that companies that have a website are more likely to be supported by programs.

Of the entrepreneur attributes variables, *Entrepreneur age* is significantly and negatively associated with *Program support* (significant at the 99.9% confidence level), indicating that companies that founded by younger entrepreneurs are more likely to be supported by programs. Moreover, *Level of education*, and *Facebook friends* are significantly associated with *Program support* (significant at the 90% confidence level, and at the 99.9% confidence level), indicating that companies that founded by entrepreneurs with a higher level of education and have more Facebook friends are more likely to be supported by programs.

Table 8.1: Logistic Regression Against Program Support

Variable	Model 1 Program Support (y/n)
C: Age	
C: Size	-$^{\alpha}$
C: Growth Plan	
C: Funding received ($)	
C: Displacement experience of employees	+***
C: Employees that are family members	
C: Employees that have university degrees	
C: Website	+**
E: Age	-***
E: Gender (male)	
E: Parents that own a business	
E: Level of education	+$^{\alpha}$
E: Work experience (years)	
E: International experience	
E: Facebook friends	+***
Model Characteristics	
Total N	393
Adjusted R^2	.40
Chi^2(dof)	*** (15)

dof = Degrees of freedom α = p < .1, * = p < .05, ** = p < .01, *** = p < .001

9. Predictors of Company Growth

With regard to unsupported companies, older companies, companies that have a website, companies founded by older entrepreneurs, and companies founded by entrepreneurs with a higher level of education are more likely to grow in terms of annual revenues. Additionally, companies that have an ambitious growth plan, companies that received more financial support, companies that have a website, and companies founded by entrepreneurs whose parents own a business are more likely to grow in terms of number of founders and employees.

With regard to supported companies, older companies, companies that founded by older entrepreneurs, and companies that founded by male entrepreneurs are more likely to grow in terms of annual revenues. Additionally, older companies, companies that have more employees that are family members, companies that founded by older entrepreneurs, and companies that founded by male entrepreneurs are more likely to grow in terms of number of founders and employees.

Which Companies Are More Likely to Grow in Size?

This section considers the question of which companies are more likely to grow in terms of annual revenues and employment. Therefore, we conduct statistical examinations of the relationships between the company growth in size and predictors of this growth in size.[15]

For the statistical examinations, we include two size indicators as dependent variables:

- Annual revenues, and
- Number of founders and employees.

We consider three kinds of predictors as independent variables:

- Company attributes,
- Entrepreneur attributes, and
- Whether or not the company has been supported by programs.

In the following sections we describe our measures, and show the results of linear regressions against *Annual revenues*, and *Number of founders and employees*. Specifically, we report regression results on supported companies, young companies from a random sample, and all[16]companies respectively.

[15] Companies that engaged with the Da Nang SME Association were excluded from the analysis sample.
[16] All companies include both supported companies, and the random sample of young companies.

Dependent Variables

We include *Annual revenues*, and *Number of founders and employees* as dependent variables:

- **Annual revenues[17]:** Respondents were asked to indicate their annual revenues on a seven-point scale from 'pre-revenue' (coded as zero) to '$1 million or more' (coded as $1.5 million). The mid-point values were used for the annual revenues responses.
- **Number of founders and employees:** Respondents were asked to indicate the number of founders, and number of employees, including full-time and part-time founders and employees (actual number). The total number of founders (both full-time and part-time) and employees (both full-time and part-time) were summed up as *Number of founders and employees* variable.

Independent Variables

We include company attributes, entrepreneur attributes, and program support as independent variables:

Company attributes

- **Age:** Indicates the company's age in years as of 2016 (all companies formed prior to 2012 were considered to be formed in 2012).
- **Growth plan:** Companies that have a clear and ambitious growth plan are expected to have greater motivation and confidence in improved company performance. Respondents were asked to indicate their company's growth plan as either 'lower growth plan' (coded as zero), 'no growth plan' (coded as 1), 'modest growth plan' (coded as 2), or 'high growth plan' (coded as 3).
- **Funding received ($):** Respondents were asked to indicate the amount of funding (e.g. grant, loan, equity investments, or competition prize) that their companies received in actual values ($).
- **Displacement experience of employees:** Respondents were asked to indicate how many founders and employees have worked or studied outside the town or city where they grew up on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4). Respondents were also asked to indicate how many founders and employees in their companies have worked or studied outside home country on a four-point scale from 'none' (coded as 2) to 'more than 65%' (coded as 8). Domestic displacement experience and international displacement experience were added together to calculate the Displacement experience of employees variable.
- **Employees that are family members:** Respondents were asked to indicate how many founders and employees in their companies are family members on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4).
- **Employees that have university degrees:** Respondents were asked to indicate how many founders and employees in their companies have college or university degrees on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4).
- **Website:** Respondents were asked to indicate if their companies have a website. If it a binary variable with a value of 1 if the company has a website and 0 otherwise.

[17] Annual revenues in VND have been converted to USD.

Entrepreneur Attributes

- **Entrepreneur age:** Entrepreneurs were asked to indicate their age on a seven-point scale from '25 or under' (coded as 1) to 'over 50' (coded as 7).
- **Gender (male):** Entrepreneurs were asked to indicate their gender. It is a binary variable with a value of 1 if the entrepreneur is male and 0 otherwise.
- **Parents that own a business:** Entrepreneurs were asked to indicate if their parents own a business. It is a binary variable with a value of 1 if the entrepreneur's parents own a business and 0 otherwise.
- **Level of education:** Entrepreneurs were asked to indicate their highest level of education on a seven-point scale from 'primary school certificate' (coded as 1) to 'Masters or PhD' (coded as 7).
- **Work experience:** Entrepreneurs were asked to indicate their work experience before founding a company on a four-point scale from 'no experience' (coded as 0) to 'more than 10 years' (coded as 15).
- **International experience:** Entrepreneurs were asked to indicate if they have worked or studied in a foreign country. It is a binary variable with a value of 1 if the entrepreneur had international experience and 0 otherwise.
- **Website:** Entrepreneurs were asked to indicate if their companies have a website. It is a binary variable with a value of 1 if the company has a website and 0 otherwise.
- **Facebook friends:** Entrepreneurs were asked to indicate their Facebook friends on a five-point scale from 'no Facebook account' (coded as 0) to 'more than 1,000 friends' (coded as 1,500).

Program support

- **Program support (y/n):** Indicated whether or not a company was supported by ADB programs. It is a binary variable with a value of 1 if the company was supported and 0 otherwise.

Linear Regression Model Results

Linear regression was used to assess which company attributes, and entrepreneur attributes are significantly related to the companies' annual revenues and number of founders and employees. Regression was also used to examine the relationships between program support and companies' growth in size.

Model Results of a Random Sample of Young Companies

Models 1 and 2 shown in Table 9.1 below regress company attributes and entrepreneur attributes against *Annual revenues* and *Number of founders and employees* respectively, based on the sample of unsupported companies.

Model 1, which includes both the company attributes and entrepreneur attributes, explains 15% of the variance in the dependent variable, *Annual revenues.* In Model 1, *Company age* and *Website* are significantly associated with *Annual revenues* (significant at the 99% confidence level, and at the 99.9% confidence level respectively), indicating that older companies, and companies that have a website are more likely to achieve growth in terms of annual revenues. Of the entrepreneur attributes variables, *Entrepreneur age* and *Level of education* are significantly associated with *Annual revenues* (significant at the 90% confidence level, and at the 95% confidence level), indicating that companies that founded by older entrepreneurs, and entrepreneurs with a higher level of education are more likely to grow in terms of annual revenues.

Model 2, which includes both the company attributes and entrepreneur attributes, explains 12% of the variance in the dependent variable, *Number of founders and employees.* In Model 2, *Growth plan*, *Financial support,* and *Website* are significantly associated with *Number of founders and employees* (significant at the 90% confidence level, at the 99% confidence level, and at the 99% confidence level respectively), indicating that companies with an ambitious growth plan, companies that have received more financial support, and companies that have a website are more likely to grow in terms of number of founders and employees. Of the entrepreneur attributes variables, *Parents own a business* is significantly associated with *Number of founders and employees* (significant at the 99% confidence level), indicating that companies that founded by entrepreneurs that their parents own a business are more likely to grow in terms of number of founders and employees.

Adjusted R^2 are less than .25, suggesting these results be interpreted and used with caution.

Table 9.1 Model Results of a Random Sample of Young Companies

Variables	Model 1 Annual Revenues	Model 2 Founders and Employees
C: Age	+**	
C: Growth plan		+ α
C: Funding received ($)		+**
C: Displacement experience of employees		
C: Employees that are family members		
C: Employees that have university degrees		
C: Website	+***	+**
E: Age	+ α	
E: Gender (male)		
E: Parents that own a business		+**
E: Level of education	+*	
E: Work experience (years)		
E: International experience		
E: Facebook friends		
Model Characteristics		
Total N	270	268
Adjusted R^2	.15	.12
F (dof)	*** (14)	*** (14)

dof = Degrees of freedom α = p < .1, * = p < .05, ** = p < .01, *** = p < .001

To further explore the company attributes and entrepreneur attributes of the random sample of young companies, we present the descriptive statistics and correlations table in Table 9.2. For each variable, the table provides: correlation with other variables, the number of observations (N), its mean, standard deviation, minimum value, and maximum value. Here we report the pertinent correlation results:

- Older companies are more likely to have a website, and to be founded by older entrepreneurs.
- Larger companies are more likely to be founded by entrepreneurs that their parents owe a business.
- Companies with an ambitious growth plan are more likely to have a website, and founded by younger entrepreneurs.
- Companies that have more employees with international displacement experience are more likely to have more employees with domestic displacement experience, and to be founded by entrepreneurs that have studied or worked in a foreign country.
- Companies that have more employees with domestic displacement experience are more likely to have more employees with university degrees, and to be founded by entrepreneurs with more years of working experience.
- Companies that have more employees that are family members are more likely to be founded by entrepreneurs with a lower level of education.
- Companies that have fewer employees with domestic displacement experience are more likely to use support services with a higher intensity.
- Companies that have more employees with university degrees are more likely to have a website, and to be founded by entrepreneurs with a higher level of education.

- Younger entrepreneurs are more likely to have a higher level of education, and to have more Facebook friends.
- Entrepreneurs that have a higher level of education are more likely to have more Facebook friends.
- Entrepreneurs with more years of work experience are more likely to have fewer Facebook friends.

All correlation findings reported above are significant at the 99% confidence level.

Table 9.2 Descriptive Statistics and Correlations Table of the Random Sample of Young Companies

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
1. C: Age																
2. C: Size																
3. C: Growth plan																
4. C: Funding received ($)																
5. C: International displacement of employees																
6. C: Domestic displacement of employees					+**											
7. C: Employees that are family members					+*											
8. C: Employees that have university degrees			+*		+**	+**										
9. C: Website	+**	+*	+**	+*				+**								
10. E: Age	+**		-**				+*		-*							
11. E: Gender (male)						+*	-*	-*								
12. E: Parents that own a business		+**														
13. E: Level of education					+*	+*	-**	+**		-**		+*				
14. E: Work experience (years)		+*			+*	+**				+**		+*	+*			
15. E: International experience					+**											
16. E: Facebook friends					+*			+*	+*	-**			+**	-**		
N	301	289	307	309	292	301	305	307	308	309	306	304	305	303	309	293
Mean	3.03	3.2 M	2.99	9.8 K	2.34	2.32	1.81	2.82	.21	4.09	.66	.12	5.40	7.39	.15	316.7
Standard deviation	1.53	21.5 M	.61	41.4 K	1.03	1.01	.93	1.02	.41	1.56	.48	.33	1.00	5.20	.36	418.2
Minimum	1	0	1	0	1	1	1	1	0	1	0	0	2	0	0	0
Maximum	6	$3.3x10^8$	4	450.0 K	4	4	4	4	1	8	1	1	7	15	1	1500

* = p < .05, ** = p < .01

Model Results of Supported Companies

Models 3 and 4 shown in Table 9.3 below regress company attributes and entrepreneur attributes against *Annual revenues* and *Number of founders and employees* respectively, based on the sample of supported companies.

Model 3, which includes both the company attributes and entrepreneur attributes, explains 21% of the variance in the dependent variable, *Annual revenues.* In Model 3, *Company age* is significantly associated with *Annual revenues* (significant at the 99% confidence level), indicating that older companies are more likely to achieve growth in terms of annual revenues. Of the entrepreneur attributes variables, *Entrepreneur age* and *Gender (male)* are significantly associated with *Annual revenues* (significant at the 99.9% confidence level, and at the 95% confidence level), indicating that companies that founded by older and male entrepreneurs are more likely to achieve growth in terms of annual revenues.

Model 4, which includes both the company attributes and entrepreneur attributes, explains 18% of the variance in the dependent variable, *Number of founders and employees.* In Model 4, *Company age*, and *Employees that are family members* are significantly associated with *Number of founders and employees* (both significant at the 95% confidence level), indicating that older companies, and companies that have a higher proportion of employees that are family members are more likely to grow in terms of number of founders and employees. Of the entrepreneur attributes variables, *Entrepreneur age and Gender (male)* are significantly associated with *Number of founders and employees* (both significant at the 95% confidence level), indicating that companies that founded by older and male entrepreneurs are more likely to grow in terms of number of founders and employees.

Table 9.3 Model Results of Supported Companies

Variable	Model 3 Annual Revenues	Model 4 Founders and Employees
C: Age	+**	+*
C: Growth plan		
C: Funding received ($)		
C: Displacement experience of employees		
C: Employees that are family members		+*
C: Employees that have university degrees		
C: Website		
E: Age	+***	+*
E: Gender (male)	+*	+*
E: Parents that own a business		
E: Level of education		
E: Work experience (years)		
E: International experience		
E: Facebook friends		
Model Characteristics		
Total N	147	146
Adjusted R^2	.21	.18
F (dof)	*** (14)	*** (14)

dof = Degrees of freedom α = p < .1, * = p < .05, ** = p < .01, *** = p < .001

10. Predictors of Impact

The impact on companies' resources and capabilities is most strongly associated with impact on *company performance.*

Additionally, older companies, companies that with an ambitious growth plan, companies that have more employees with international displacement experience are more likely to attribute the Support Programs with impact on company performance.

Moreover, companies that founded by entrepreneurs with a higher level of education, and companies that founded by entrepreneurs whose parents did not own a business are more likely to attribute the Support Programs with impact on company performance.

How Support Programs Achieve Impact on Company Performance

In this section we consider the question of how Support Programs have achieved this impact. It is expected, as indicated by TEN's logic model, that innovation intermediary activities and services create shorter-term impacts on companies' resources and capabilities, which lead to subsequent impacts on company performance. Therefore, we conduct statistical examinations of the relationships between the Support Program's impact on company performance and predictors of that impact.

For the statistical examinations, we selected four measures of impact on company performance as dependent variables:

- Impact on *Annual revenues*,
- Impact on *Employment*,
- Impact on *Funding received*, and
- Indirect impact factor[18].

We considered three kinds of predictors of impact on the dependent variables:

- Company attributes and entrepreneur attributes that we included as control variables,
- The degree of use of support services offered by the Support Programs, and
- The nature and degree of impact on companies' resources and capabilities.

In the following sections we describe our measures, and show the results of linear regressions against impact on *Annual revenues*, impact on *Employment*, impact on *Funding received,* and *indirect impact factor* respectively. Additionally, we also present regression results against impact on companies' resources and capabilities.[19]

[18] Indirect impact factor variable was calculated using factor analysis based on impact on annual revenues, impact on employment, and impact on funding received.

[19] Companies that engaged with the Da Nang SME Association were excluded from the analysis sample.

Control Variables

We controlled for sixteen company attributes and entrepreneur attributes that may affect a respondent's assessment of the impact of the Support Programs on their *Annual revenues*, *Employment*, and *Funding received* performance:

Company Attributes

- **Company age:** Indicates the company's age in years as of 2016 (all companies formed prior to 2012 were considered to be formed in 2012).
- **Size:** Respondents were asked to indicate their annual revenues on a seven-point scale from 'pre-revenue' (coded as zero) to '$1 million or more' (coded as $1.5 million). The mid-point values were used for the annual revenues responses. Respondents were also asked to indicate the number of founders, and number of employees, including full-time and part-time founders and employees (actual number). The number of founders and employees and the mid-point values for the annual revenues responses were multiplied to get an indicator of company size.
- **Growth plan:** Companies that have a clear and ambitious growth plan are expected to have greater motivation and confidence in improved company performance. Respondents were asked to indicate their company's growth plan as either 'lower growth plan' (coded as zero), 'no growth plan' (coded as 1), 'modest growth plan' (coded as 2), or 'high growth plan' (coded as 3).
- **Funding received ($):** Respondents were asked to indicate the amount of funding (e.g. grant, loan, equity investments, or competition prize) that their companies received in actual values ($).
- **International displacement experience of employees:** Respondents were also asked to indicate how many founders and employees in their companies have worked or studied outside home country on a four-point scale from 'none' (coded as 2) to 'more than 65%' (coded as 8).
- **Domestic displacement experience of employees:** Respondents were asked to indicate how many founders and employees in their companies have worked or studied outside the town or city where they grew up on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4).
- **Employees that are family members:** Respondents were asked to indicate how many founders and employees in their companies are family members on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4).
- **Employees that have university degrees:** Respondents were asked to indicate how many founders and employees in their companies have college or university degrees on a four-point scale from 'none' (coded as 1) to 'more than 65%' (coded as 4).
- **Website:** Respondents were asked to indicate if their companies have a website. If it a binary variable with a value of 1 if the company has a website and 0 otherwise.

Entrepreneur Attributes

- **Entrepreneur age:** Entrepreneurs were asked to indicate their age on a seven-point scale from '25 or under' (coded as 1) to 'over 50' (coded as 7).
- **Gender (male):** Entrepreneurs were asked to indicate their gender. It is a binary variable with a value of 1 if the entrepreneur is male and 0 otherwise.
- **Parents that own a business:** Entrepreneurs were asked to indicate if their parents own a business. It is a binary variable with a value of 1 if the entrepreneur's parents own a business and 0 otherwise.
- **Level of education:** Entrepreneurs were asked to indicate their highest level of education on a seven-point scale from 'primary school certificate' (coded as 1) to 'Masters or PhD' (coded as 7).
- **Work experience:** Entrepreneurs were asked to indicate their work experience before founding a company on a four-point scale from 'no experience' (coded as 0) to 'more than 10 years' (coded as 15).
- **International experience:** Entrepreneurs were asked to indicate if they have worked or studied in a foreign country. It is a binary variable with a value of 1 if the entrepreneur had international experience and 0 otherwise.
- **Website:** Entrepreneurs were asked to indicate if their companies have a website. It is a binary variable with a value of 1 if the company has a website and 0 otherwise.
- **Facebook friends:** Entrepreneurs were asked to indicate their Facebook friends on a five-point scale from 'no Facebook account' (coded as 0) to 'more than 1,000 friends' (coded as 1,500).

Intensity of Use of Support Services

Use of support services: Respondents were asked to rate the support services of the venture support programs in terms of their intensity of use. All of the venture support programs are categorized as either full-time (that is, provision of full-time Mentoring, Networking, Instruction, Working space, Access to funding, and Business support services), or training programs. In terms of full-time programs, respondents were asked to indicate their intensity of use of services on a four-point scale from 'did not use' (coded as 1) to 'high intensity' (coded as 4). In terms of training programs, respondents were asked to indicate their degree of participation in training sessions on a four-point scale from 'did not participate' (coded as 1) to 'fully participated' (coded as 4).

Regression Variables

We conducted correlations and linear regression analyses to explain how impact on company resources and capabilities, and performance is achieved. Table 10.1 shows all the variables included in the regressions. To reduce complexity, a factor analysis was used to consolidate measures of impact. As shown in the table below, the three impact on resources and capabilities measures were reduced to one factor: *Direct impact*. The three impact on company performance measures were

reduced to one factor: *Indirect impact*. All composite factors of impact measures are reliable as indicated by the Cronbach alphas.[20]

Table 10.1 Regression Variables

Type of Measures	Measures	Regression Variables
Intensity of Use	• *Mentoring* • *Networking* • *Instruction* • *Working space* • *Access to funding* • *Business support services* • *Degree of participation in training sessions*	Use of support services[21]
Independent impact measures	*Impact on:* • *Business expertise* • *Business network expansion* • *Knowledge of customer needs*	Direct impact (Cronbach's Alpha = .91)
Impact on performance measures	*Impact on:* • *Change in annual revenues*	Impact on annual revenues
	Impact on: • *Change in employment*	Impact on employment
	Impact on: • *Funding received*	Impact on funding received
	Impact on: • *Change in annual revenues* • *Change in employment* • *Funding received*	Indirect impact factor (Cronbach's Alpha = .93)
Controls	• *Year founded* • *Annual revenues* • *Number of employees* • *Company growth plan* • *Financial support ($)*	Company age Size Growth plan Funding received

[20] Cronbach's alpha is a measure of internal consistency.

[21] For full-time programs, *Use of support service* variable is calculated as the average of *Mentoring*, *Networking, Instruction, Working space, Access to funding*, and *Business support services*. For training programs, *Use of support service* variable is calculated based on the *degree of participation in training sessions*.

Table 10.1 (Continued)

Type of Measures	Measures	Regression Variables
Controls	• *Proportion of founders and employees with int'l displacement experience*	International displacement experience of employees
	• *Proportion of founder and employees with domestic displacement experience*	Domestic displacement experience of employees
	• *Proportion of founders and employees that are family members*	Employees that are family members
	• *Proportion of founders and employees that have university degrees*	Employees that have university degrees
	• *Website*	Website
	• *Entrepreneur age*	Entrepreneur age
	• *Gender*	Gender (male)
	• *Family business*	Parents that own a business
	• *Highest level of education*	Level of education
	• *Work experience before founding the company*	Work experience (years)
	• *Entrepreneurs have worked or studied in a foreign country*	International experience
	• *Number of Facebook friends*	Facebook friends

Descriptive Statistics

Table 10.2 presents a descriptive statistics and correlations table. For each variable, the table provides: correlation with other variables, the number of observations (N), its mean, standard deviation, minimum value, and maximum value. Here we report the pertinent correlation results:

Direct Impact

- Younger, male entrepreneurs, with a lower level of education, and companies that have used the venture support program services with greater intensity are more likely to attribute impact on their resources and capabilities.

Indirect Impact

- Younger entrepreneurs, and companies that have attributed greater impact on their resources and capabilities are more likely to attribute impact on their performance.

Company and Entrepreneur Attributes

- Older companies are more likely to be larger in size, to have a website, and to be founded by older entrepreneurs.
- Younger companies are more likely to use support services with a higher intensity.
- Companies without growth plan, or with a lower growth plan are more likely to use support services with a higher intensity.
- Companies that founded by older entrepreneurs are more likely to receive a greater amount of financial support.
- Companies that have more employees with international displacement experience are more likely to have more employees with domestic displacement experience, to be founded by

entrepreneurs with a higher level of education, and to be founded by entrepreneurs with international experience.

- Companies that have more employees with domestic displacement experience are more likely to have a website, to be founded by male entrepreneurs, and to be founded by entrepreneurs that have studied or worked in a foreign country.
- Companies that have fewer employees with domestic displacement experience are more likely to use support services with a higher intensity.
- Companies that have more employees with university degrees are more likely to be founded by male entrepreneurs.
- Older entrepreneurs are more likely to have a higher level of education, to have more years of work experience, and to have studied or worked in a foreign country.

All correlation findings reported above are significant at the 99% confidence level.

Table 10.2 Descriptive Statistics and Correlations Table of Supported Companies[22]

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
1. C: Age																			
2. C: Size	+**																		
3. C: Growth plan																			
4. C: Funding received ($)																			
5. C: International displacement																			
6. C: Domestic displacement	+*	+*			+**														
7. C: Family members	+*																		
8. C: University degrees	-*				+*		-*												
9. C: Website	+**		+*			+**													
10. E: Age	+**			+**	+*				+*										
11. E: Gender (male)						+**		+**											
12. E: Parents that own a business										-**									
13. E: Level of education					+**				+*	+**									
14. E: Work experience (years)				+*	+*	+*			+*	+**			+**						
15. E: International experience					+**	+**				+**			+**	+**					
16. E: Facebook friends							-*			-*									
17. Support services	-**		-**			-**						+*				+*			
18. Direct impact factor										-**	+*		-**				+**		
19. Indirect impact factor										-*								+**	
N	162	157	157	176	163	160	160	160	162	158	155	157	158	153	158	157	157	156	152
Mean	2.99	1.1 M	3.23	7.5 K	1.90	3.02	1.65	3.41	.56	2.66	.70	.18	6.10	6.38	.39	812.1	2.99	.08	.05
Standard deviation	1.54	3.3 M	.69	22.9 K	1.00	1.15	.89	.84	.50	1.43	.46	.38	.72	5.83	.49	566.9	.81	.98	1.01
Minimum	1	0	1	0	1	1	1	1	0	1	0	0	4	0	0	0	1	-2.03	-1.02
Maximum	5	27.0 M	4	200.0 K	4	4	4	4	1	7	1	1	7	15	1	1500	4	1.64	3.34

* = p < .05, ** = p < .01

[22] Companies that engaged with the Da Nang SME Association are excluded from the analysis sample.

Linear Regression Model Results

As indicated by TEN's logic model for innovation intermediaries, the achievement of impacts on company performance depends on the achievement of shorter-term impacts on companies' resources and capabilities, which in turn, depends on the Support Program's activities. Linear regression was used to examine the relationships between the use of support services offered by the Support Programs, impact on resources and capabilities, and impact on company performance. Regression was also used to assess which services and impact on resources and capabilities are significantly related to the impact of the Support Programs on companies' performance. We also controlled for company attributes and entrepreneur attributes that may affect companies' assessment of the impact of the Support Programs on their performance.

Details on five models may be found in Table 10.3 below. Model 1 regresses control variables, and intensity of use of support services against direct impact on companies' resources and capabilities. Models 2, 3, 4, and 5 regress control variables, intensity of use of support services, and the independent impact factor against impact on company performance measures.

Model 1, which includes control variables and intensity of use of support services, explains 37% of the variance in the dependent variable, *Direct impact factor*. Model 1 shows that *Use of services* is significantly associated with *Direct impact factor* (significant at the 99.9% confidence level), indicating that companies that used support services with a higher intensity are more likely to attribute the Support Programs with impact on resources and capabilities. Of the company attributes variables, *Domestic displacement experience of employees*, and *Employees that have university degrees* are significantly associated with *Direct impact factor* (significant at the 95% confidence level, and at the 90% confidence level respectively), indicating that companies that have more employees with domestic displacement experience, and companies that have more employees with university degrees are more likely to attribute the Support Programs with impact on resources and capabilities. Of the entrepreneur attributes variables, *Entrepreneur age* is significantly and negatively associated with *Direct impact factor* (significant at the 99% confidence level), indicating that companies that were founded by younger entrepreneurs are more likely to attribute the Support Programs with impact on resources and capabilities. In addition, *Level of education* is significantly and negatively associated with *Direct impact factor* (significant at the 99% confidence level), indicating that companies that were founded by entrepreneurs with a lower level of education are more likely to attribute the Support Programs with impact on resources and capabilities. Moreover, *Work experience* is significantly associated with *Direct impact factor* (significant at the 95% confidence level), indicating that companies that were founded by entrepreneurs with more years of work experience are more likely to attribute the Support Programs with impact on resources and capabilities.

Model 2, depicted in Figure 10.1, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 27% of the variance in the dependent variable, *Indirect impact factor*. Model 2 shows that *Direct impact factor* is significantly associated with *Indirect impact factor* (significant at the 99.9% confidence level), indicating that companies reported higher impact on resources and capabilities are more likely to attribute the Support Programs with impact on company performance. Of the company attributes variables, *Company age*, *Growth plan,* and *International displacement experience of employees* are significantly associated with *Indirect*

impact factor (significant at the 95% confidence level, at the 99% confidence level, and at the 95% confidence level respectively), indicating that older companies, companies with an ambitious growth plan, and companies that have more employees that have international displacement experience are more likely to attribute the Support Programs with impact on company performance. Of the entrepreneur attributes variables, *Parents that own a business* is significantly and negatively associated with *Indirect impact factor* (significant at the 99% confidence level), indicating that companies that were founded by entrepreneurs whose parents do not own a business are more likely to attribute the Support Programs with impact on company performance. In addition, *Level of education* is significantly associated with *Indirect impact factor* (significant at the 90% confidence level), indicating that companies that were founded by entrepreneurs with a higher level of education are more likely to attribute the Support Programs with impact on company performance.

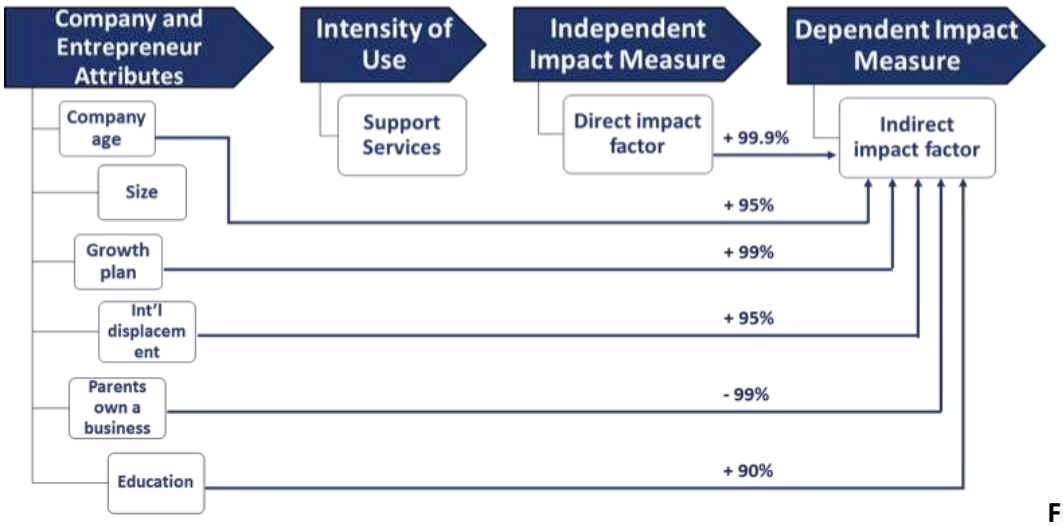

Figure 10.1 Model 2 – Impact on Indirect Impact

Model 3, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 34% of the variance in the dependent variable, impact on *Annual revenues*. Model 3 shows that *Direct impact factor* is significantly associated with impact on *Annual revenues* (significant at the 99.9% confidence level), indicating that companies that reported higher impact on resources and capabilities are more likely to attribute the Support Programs with impact on their annual revenues. Of the company attributes variables, *Company age*, *Growth plan,* and *International displacement experience of employees* are significantly associated with impact on *Annual revenues* (significant at the 99.9% confidence level, at the 99% confidence level, and at the 95% confidence level respectively), indicating that older companies, companies with an ambitious growth plan, and companies that have more employees that have international displacement experience are more likely to attribute the Support Programs with impact on *Annual revenues*. Additionally, *Employees that have university degrees* is significantly and negatively associated with impact on *Annual revenues* (significant at the 95% confidence level), indicating that companies that have fewer employees with a university degree are more likely to attribute the Support Programs with impact on their annual revenues. Of the entrepreneur attributes variables, *Parents that own a*

business is significantly and negatively associated with impact on *annual revenues* (significant at the 90% confidence level), indicating that companies that were founded by entrepreneurs whose parents do not own a business are more likely to attribute the Support Programs with impact on *Annual revenues*. In addition, *Level of education* is significantly associated with impact on *Annual revenues* (significant at the 99% confidence level), indicating that companies that were founded by entrepreneurs with a higher level of education are more likely to attribute the Support Programs with impact on *Annual revenues*. Moreover, *International experience* is significantly associated with impact on *Annual revenues* (significant at the 95% confidence level), indicating that companies that were founded by entrepreneurs that studied or worked in a foreign country are more likely to attribute the Support Programs with impact on *Annual revenues*.

Model 4, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 13% of the variance in the dependent variable, impact on *Employment*. Model 3 shows that *Direct impact factor* is significantly associated with impact on *Employment* (significant at the 99.9% confidence level), indicating that companies that reported higher impact on resources and capabilities are more likely to attribute the Support Programs with impact on their employment. Of the company attributes variables, *Growth plan,* and *Employees that are family members* are significantly associated with impact on *Employment* (significant at the 99% confidence level, and at the 90% confidence level respectively), indicating that companies with an ambitious growth plan, and companies that have more employees that are family members are more likely to attribute the Support Programs with impact on their employment.

Model 5, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 13% of the variance in the dependent variable, impact on *Funding received*. Model 3 shows that *Direct impact factor* is significantly associated with impact on *Funding received* (significant at the 99.9% confidence level), indicating that companies that reported higher impact on resources and capabilities are more likely to attribute the Support Programs with impact on their funding received. Of the company attributes variables, *Domestic displacement experience of employees* is significantly and negatively associated with impact on *Funding received* (significant at the 99% confidence level), indicating that companies that have fewer employees with domestic displacement experience are more likely to attribute the Support Programs with impact on their funding received. Of the entrepreneur attributes variables, *Parents that own a business*, and *Work experience* are significantly and negatively associated with impact on *Funding received* (significant at the 99% confidence level, and at the 95% confidence level respectively), indicating that companies that were founded by entrepreneurs whose parents do not own a business, and by entrepreneurs with less work experience are more likely to attribute the Support Programs with impact on their funding received.

Table 10.3 Linear Regressions of All Support Programs

Variable	Model 1 Direct impact factor	Model 2 Indirect impact factor	Model 3 Impact on annual revenues	Model 4 Impact on employment	Model 5 Impact on funding received
C: Age		+*	+***		
C: Size					
C: Growth plan		+**	+**	+**	
C: Funding received ($)					
C: International displacement of employees		+*	+*		
C: Domestic displacement of employees	+*				-**
C: Employees that are family members				+ α	
C: Employees that have university degrees	+ α		-*		
C: Website					
E: Age	-**				
E: Gender (male)					
E: Parents that own a business		-**	- α		-**
E: Level of education	-**	+ α	+**		
E: Work experience (years)	+*				-*
E: International experience			-*		
E: Facebook friends					
Use of Services	+***				
Direct Impact Factor		+***	+***	+***	+***
Model Characteristics					
Total N	147	149	147	149	149
Adjusted R^2	.37	.27	.34	.13	.20
F (dof)	*** (17)	*** (18)	*** (18)	** (18)	*** (18)

dof = Degrees of freedom α = p < .1, * = p < .05, ** = p < .01, *** = p < .001

Linear Regression Model Results by City of Support Programs

We also conduct individual regression analyses by different cities of support programs. Specifically, the following section will report regression model results on Ministry of Commerce 101 (MOC) program, Phnom Penh programs, and Ho Chi Ming City programs respectively[23].

Model 6 regresses control variables, and intensity of use of support services against direct impact on companies' resources and capabilities, based on sample of Ministry of Commerce 101 program. Models 7, 8, 9, and 10 regress control variables, intensity of use of support services, and the direct impact factor against impact on company performance measures, based on sample of Ministry of Commerce 101 program. Details on the five models may be found in Table 10.4.

Model 6, which includes control variables and intensity of use of support services, explains 31% of the variance in the dependent variable, *Direct impact factor*. Model 6 shows that *Use of services* is significantly associated with *Direct impact factor* (significant at the 95% confidence level), indicating that companies that used support services with a higher intensity are more likely to attribute the MOC program with impact on resources and capabilities. Of the company attributes variables, *Funding received* is significantly associated with *Direct impact factor* (significant at the 95% confidence level), indicating that companies that received more financial support are more likely to attribute the MOC program with impact on their resources and capabilities. Of the entrepreneur attributes variables, *Entrepreneur age,* and *Level of education* are significantly and negatively associated with *Direct impact factor* (significant at the 90% confidence level, and at the 99% confidence level respectively), indicating that companies that were founded by younger entrepreneurs , and that founded by entrepreneurs with a lower level of education are more likely to attribute the MOC program with impact on their resources and capabilities. Moreover, *Work experience,* and *Facebook friends* are significantly associated with *Direct impact factor* (significant at the 99% confidence level, and at the 95% confidence level respectively), indicating that companies that were founded by entrepreneurs with more years of work experience, and that founded by entrepreneurs that have more Facebook friends are more likely to attribute the MOC program with impact on resources and capabilities.

Model 7, depicted in Figure 10.2, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 27% of the variance in the dependent variable, *Indirect impact factor*. Of the company attributes variables, *Funding received* is significantly associated with *Indirect impact factor* (significant at the 95% confidence level), indicating that companies that received more financial support are more likely to attribute the MOC program with impact on company performance. Of the entrepreneur attributes variables, *Entrepreneur age* is significantly and negatively associated with *Indirect impact factor* (significant at the 90% confidence level), indicating that

[23] We did not conduct individual regression analysis for Da Nang programs due to data paucity.

companies that founded by younger entrepreneurs are more likely to attribute the MOC program with impact on company performance.

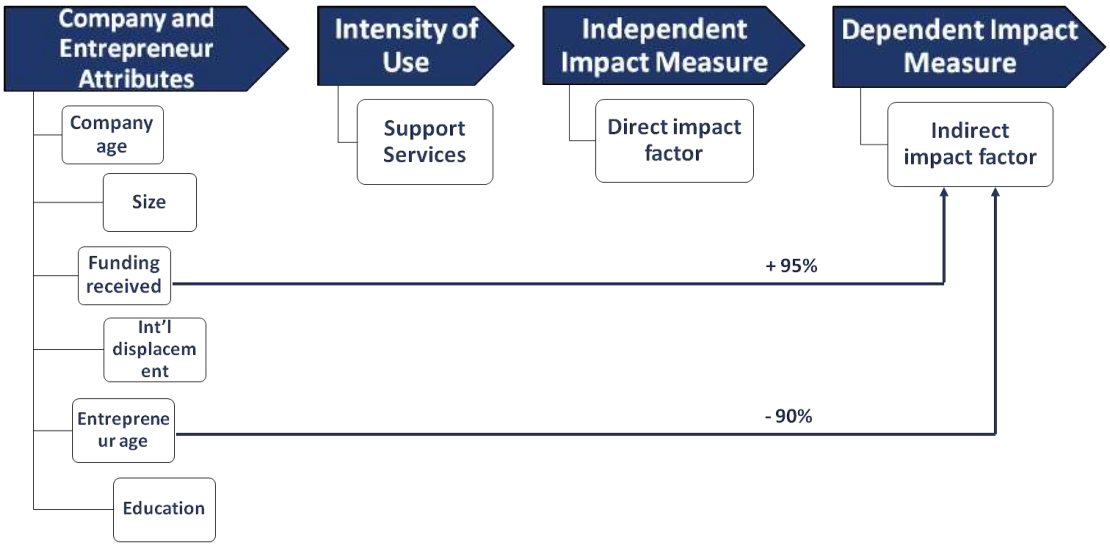

Figure 10.2 Model 7 – Impact on Indirect Impact

Model 8, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 30% of the variance in the dependent variable, impact on *Annual revenues*. Model 8 shows that *Direct impact factor* is significantly associated with impact on *Annual revenues* (significant at the 95% confidence level), indicating that companies reported higher impact on resources and capabilities are more likely to attribute the MOC program with impact on their annual revenues. Of the company attributes variables, *Funding received* is significantly associated with impact on *Annual revenues* (significant at the 95% confidence level), indicating that companies that received more financial support are more likely to attribute the MOC program with impact on *Annual revenues*. Of the entrepreneur attributes variables, *Entrepreneur age* is significantly and negatively associated with impact on *annual revenues* (significant at the 90% confidence level), indicating that companies that founded by younger entrepreneurs are more likely to attribute the MOC program with impact on *Annual revenues*.

Model 9, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 21% of the variance in the dependent variable, impact on *Employment*. Of the company attributes variables, *Funding received* is significantly associated with impact on *Employment* (significant at the 90% confidence level), indicating that companies that received more financial support are more likely to attribute the MOC program with impact on their employment. Of the entrepreneur attributes variables, *Work experience and Facebook friends* are significantly associated with impact on *employment*

(both significant at the 90% confidence level), indicating that companies that were founded by entrepreneurs with more work experience, and that were founded by entrepreneurs with more Facebook friends are more likely to attribute the MOC program with impact on their employment.

Model 10, which includes control variables, intensity of use of support services, and direct impact factor variable, does not explain the variance in the dependent variable, impact on *Funding received*. None of the independent variables is significant in Model 10.

Table 10.4 Linear Regressions of the Ministry of Commerce 101 Program

Variable	Model 6 Direct impact factor	Model 7 Indirect impact factor	Model 8 Impact on annual revenues	Model 9 Impact on employment	Model 10 Impact on funding received
C: Age					
C: Size					
C: Growth plan					
C: Funding received ($)	+*	+*	+*	+$^{\alpha}$	
C: International displacement of employees					
C: Domestic displacement of employees					
C: Employees that are family members					
C: Employees that have university degrees					
C: Website					
E: Age	-$^{\alpha}$	-$^{\alpha}$	-$^{\alpha}$		
E: Gender (male)					
E: Parents that own a business					
E: Level of education	-**				
E: Work experience (years)	+**			+$^{\alpha}$	
E: International experience					
E: Facebook friends	+*			+$^{\alpha}$	
Use of Services	+*				
Direct Impact Factor			+*		
Model Characteristics					
Total N	43	47	47	48	48
Adjusted R^2	.31	.27	.30	.21	-.06
F (dof)	** (8)	** (8)	** (8)	** (8)	(8)

dof = Degrees of freedom α = p < .1, * = p < .05, ** = p < .01, *** = p < .001

Details on the five models based on sample of the Phnom Penh programs may be found in Table 10.5 below. Model 11 regresses control variables, and intensity of use of support services against direct impact on companies' resources and capabilities,. Models 12, 13, 14, and 15 regress control variables, intensity of use of support services, and the direct impact factor against impact on company performance measures, based on sample of the Phnom Penh programs.

Model 11, which includes control variables and intensity of use of support services, explains 43% of the variance in the dependent variable, *Direct impact factor*. Model 11 shows that *Use of services* is significantly associated with *Direct impact factor* (significant at the 95% confidence level), indicating that companies that used support services with a higher intensity are more likely to attribute the Phnom Penh programs with impact on resources and capabilities. Of the company attributes variables, *Growth plan* is significantly and negatively associated with *Direct impact factor* (significant at the 95% confidence level), indicating that companies with a modest growth plan or with no growth plan are more likely to attribute the Phnom Penh programs with impact on their resources and capabilities. Of the entrepreneur attributes variables, *Level of education* is significantly and negatively associated with *Direct impact factor* (significant at the 95% confidence level), indicating that companies that were founded by entrepreneurs with a lower level of education are more likely to attribute the Phnom Penh programs with impact on their resources and capabilities. Moreover, *Work experience* is significantly associated with *Direct impact factor* (significant at the 90% confidence level), indicating that companies that were founded by entrepreneurs with more years of work experience are more likely to attribute the Phnom Penh programs with impact on resources and capabilities.

Model 12, depicted in Figure 10.3, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 26% of the variance in the dependent variable, *Indirect impact factor*. Model 12 shows that *Direct impact factor* is significantly associated with *Indirect impact factor* (significant at the 99.9% confidence level), indicating that companies that reported higher impact on resources and capabilities are more likely to attribute the Phnom Penh programs with impact on company performance. Of the company attributes variables, *Company age, and International displacement experience of employees* are significantly associated with *Indirect impact factor* (significant at the 90% confidence level, and at the 99% confidence level), indicating that older companies, and companies that have more employees with international displacement experience are more likely to attribute the Phnom Penh programs with impact on company performance. Moreover, *Employees that have university degrees* is significantly and negatively associated with *Indirect impact factor* (significant at the 95% confidence level), indicating that companies that have less employees with a university degree are more likely to attribute the Phnom Penh programs with impact on company performance.

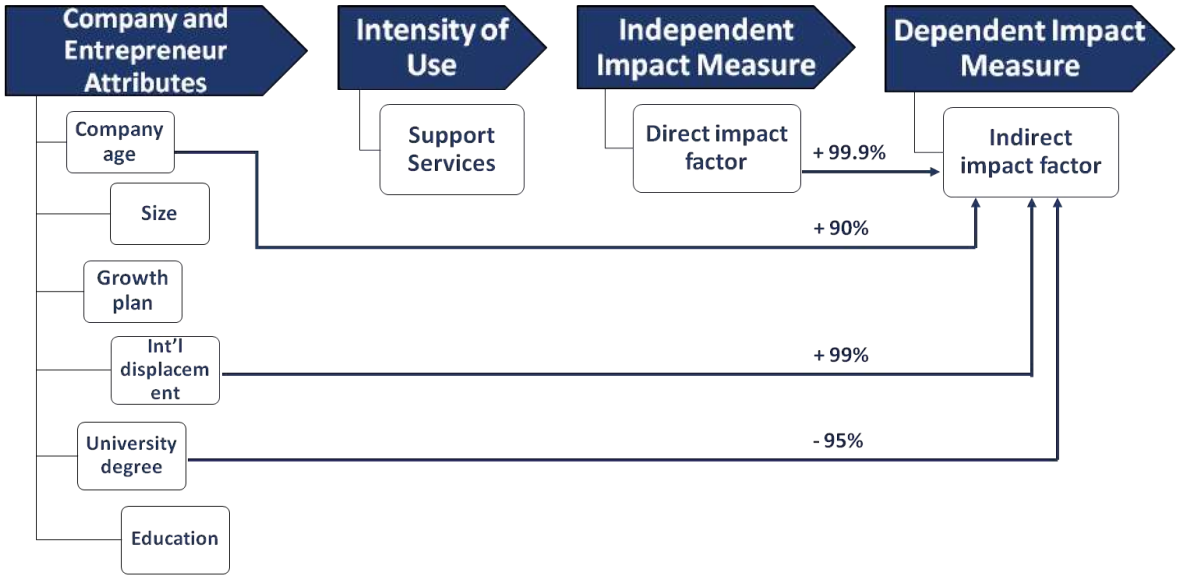

Figure 10.3 Model 12 – Impact on Indirect Impact

Model 13, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 30% of the variance in the dependent variable, impact on *Annual revenues*. Model 13 shows that *Direct impact factor* is significantly associated with impact on *Annual revenues* (significant at the 99.9% confidence level), indicating that companies reported higher impact on resources and capabilities are more likely to attribute the Phnom Penh programs with impact on their annual revenues. Of the company attributes variables, *Company age, Growth plan, and International displacement experience of employees* are significantly associated with impact on *Annual revenues* (all significant at the 90% confidence level), indicating that older companies, companies with an ambitious growth plan, and companies that have more employees with international displacement experience are more likely to attribute the Phnom Penh programs with impact on *Annual revenues*. Moreover, *Employees that have university degrees* is significantly and negatively associated with impact on *Annual revenues*, indicating that companies that have fewer employees with a university degree are more likely to attribute the Phnom Penh programs with impact on *Annual revenues*. Of the entrepreneur attributes variables, *Level of education* is significantly associated with impact on *annual revenues* (significant at the 95% confidence level), indicating that companies that founded by entrepreneurs with a higher level of education are more likely to attribute the Phnom Penh programs with impact on *Annual revenues*.

Model 14, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 18% of the variance in the dependent variable, impact on *Employment*. Model 14 shows that *Direct impact factor* is significantly associated with impact on *Employment* (significant at the 99% confidence level), indicating that companies reported higher impact on resources and capabilities are more likely to attribute the Phnom Penh programs with impact on their employment. Of the company attributes variables, *Company age, and International*

displacement experience of employees are significantly associated with impact on *Employment* (significant at the 95% confidence level, and at the 99% confidence level respectively), indicating that older companies, and companies that have more employees with international displacement experience are more likely to attribute the Phnom Penh programs with impact on their employment. Of the entrepreneur attributes variables, *Level of education is* significantly associated with impact on *employment* (significant at the 90% confidence level), indicating that companies that were founded by entrepreneurs with a higher level of education are more likely to attribute the Phnom Penh programs with impact on their employment.

Model 15, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 35% of the variance in the dependent variable, impact on *Funding received*. Model 15 shows that *Direct impact factor* is significantly associated with impact on *Funding received* (significant at the 95% confidence level), indicating that companies that reported higher impact on resources and capabilities are more likely to attribute the Phnom Penh programs with impact on their funding received. Of the company attributes variables, *Size, and International displacement experience of employees* are significantly associated with impact on *Funding received* (significant at the 99.9% confidence level, and at the 90% confidence level respectively), indicating that older companies, and companies that have more employees with international displacement experience are more likely to attribute the Phnom Penh programs with impact on their funding received.

Table 10.5 Linear Regressions of the Phnom Penh Programs

Variable	Model 11 Direct impact factor	Model 12 Indirect impact factor	Model 13 Impact on annual revenues	Model 14 Impact on employment	Model 15 Impact on funding received
C: Age		+ $^{\alpha}$	+ $^{\alpha}$	+*	
C: Size					+***
C: Growth plan	-*		+ $^{\alpha}$		
C: Funding received ($)					
C: International displacement of employees		+**	+ $^{\alpha}$	+**	+ $^{\alpha}$
C: Domestic displacement of employees					
C: Employees that are family members					
C: Employees that have university degrees		-*	-*		
C: Website					
E: Age					
E: Gender (male)					
E: Parents that own a business					
E: Level of education	-*		+*	+ $^{\alpha}$	
E: Work experience (years)	+ $^{\alpha}$				
E: International experience				-*	
E: Facebook friends					
Use of Services	+*				
Direct Impact Factor		+***	+***	+**	+*
Model Characteristics					
Total N	65	69	69	72	71
Adjusted R^2	.43	.26	.30	.18	.35
F (dof)	*** (13)	** (13)	** (13)	* (13)	*** (13)

dof = Degrees of freedom α = p < .1, * = p < .05, ** = p < .01, *** = p < .001

Details of five models based on sample of the HCMC programs may be found in Table 10.6. Model 16 regresses control variables, and intensity of use of support services against direct impact on companies' resources and capabilities. Models 17, 18, 19, and 20 regress control variables, intensity of use of support services, and the direct impact factor against impact on company performance measures,.

Model 16, which includes control variables and intensity of use of support services, explains 39% of the variance in the dependent variable, *Direct impact factor*. Model 16 shows that *Use of services* is significantly associated with *Direct impact factor* (significant at the 99% confidence level), indicating that companies that used support services with a higher intensity are more likely to attribute the HCMC programs with impact on resources and capabilities. Of the company attributes variables, *Size* is significantly and negatively associated with *Direct impact factor* (significant at the 95% confidence level), indicating that smaller companies are more likely to attribute the HCMC programs with impact on their resources and capabilities. Of the entrepreneur attributes variables, *Entrepreneur age* is significantly and negatively associated with *Direct impact factor* (significant at the 99% confidence level), indicating that companies that were founded by younger entrepreneurs are more likely to attribute the HCMC programs with impact on their resources and capabilities. Moreover, *Work experience* is significantly associated with *Direct impact factor* (significant at the 90% confidence level), indicating that companies that were founded by entrepreneurs with more years of work experience are more likely to attribute the HCMC programs with impact on resources and capabilities.

Model 17, depicted in Figure 10.4, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 29% of the variance in the dependent variable, *Indirect impact factor*. Model 17 shows that *Direct impact factor* is significantly associated with *Indirect impact factor* (significant at the 99% confidence level), indicating that companies that reported higher impact on resources and capabilities are more likely to attribute the HCMC programs with impact on company performance.

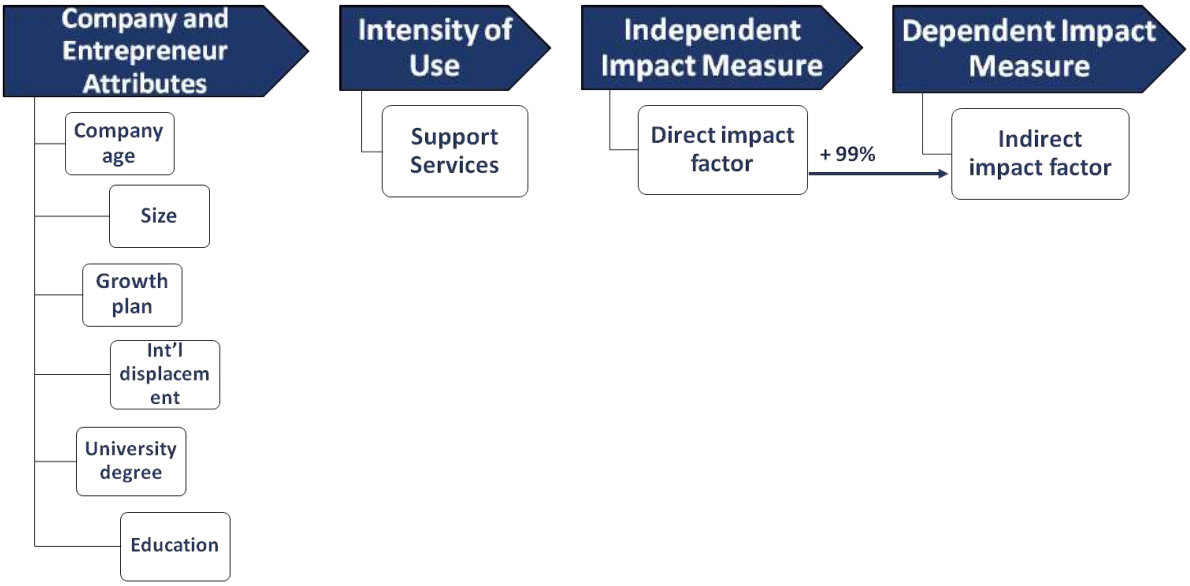

Figure 10.4 Model 17 – Impact on Indirect Impact

Model 18, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 46% of the variance in the dependent variable, impact on *Annual revenues*. Model 18 shows that *Direct impact factor* is significantly associated with impact on *Annual revenues* (significant at the 99% confidence level), indicating that companies that reported higher impact on resources and capabilities are more likely to attribute the HCMC programs with impact on their annual revenues. Of the company attributes variables, *Company age* is significantly associated with impact on *Annual revenues* (significant at the 95% confidence level), indicating that older companies are more likely to attribute the HCMC programs with impact on *Annual revenues*. Of the entrepreneur attributes variables, *Level of education*, and *Work experience* are significantly associated with impact on *annual revenues* (both significant at the 90% confidence level), indicating that companies that were founded by entrepreneurs with a higher level of education, and that were founded by entrepreneurs with more years of work experience are more likely to attribute the HCMC programs with impact on *Annual revenues*. Moreover, *International experience* is significantly and negatively associated with impact on *Annual revenues* (significant at the 95% confidence level), indicating that companies that were founded entrepreneurs that have not studied or worked in a foreign country are more likely to attribute the HCMC programs with impact on their annual revenues.

Model 19, which includes control variables, intensity of use of support services, and direct impact factor variable, only explains 7% of the variance in the dependent variable, impact on *Employment*. None of the independent variables are significant in Model 19.

Model 20, which includes control variables, intensity of use of support services, and direct impact factor variable, only explains 5% of the variance in the dependent variable, impact on *Funding received*. None of the independent variables are significant in Model 20.

Table 10.6 Linear Regressions of the HCMC Programs

Variable	Model 16 Direct impact factor	Model 17 Indirect impact factor	Model 18 Impact on annual revenues	Model 19 Impact on employment	Model 20 Impact on funding received
C: Age			+*		
C: Size	-*				
C: Growth plan					
C: Funding received ($)					
C: International displacement of employees					
C: Domestic displacement of employees					
C: Employees that are family members					
C: Employees that have university degrees					
C: Website					
E: Age	-**				
E: Gender (male)					
E: Parents that own a business					
E: Level of education			+ α		
E: Work experience (years)	+ α		+ α		
E: International experience			- α		
E: Facebook friends					
Use of services	+**				
Direct impact factor		+**	+**		
Model Characteristics					
Total N	48	48	48	48	48
Adjusted R^2	.39	.29	.46	.07	.05
F (dof)	** (9)	** (9)	*** (9)	(9)	(9)

dof = Degrees of freedom α = p < .1, * = p < .05, ** = p < .01, *** = p < .00

11. Glossary of Terms

Term	Description
Confidence level	Used to describe the reliability of a calculation or estimate. A higher confidence level indicates a more reliable estimate.
Impact on resources and capabilities	Improvements, within a short timeframe, to resources and capabilities. TEN examines improvements to resources and capabilities as outcomes of service offerings from innovation intermediaries, such as improved business linkages.
Distribution	The arrangement of the frequency of occurrence around a particular value.
Frequency distribution	A graphical representation of the occurrence of each value within a range of values. TEN often uses this tool to represent the frequency of different answers in response to a particular survey question.
Impact on performance	A change in performance resulting from changes in resources and capabilities. TEN investigates changes in company performance metrics attributable to services provided by innovation intermediaries that increase companies' capacity to perform. For example, change in employment.
Innovation intermediary	A member of a class of organizations with common goals including the support of innovation. TEN works with innovation intermediaries, ranging from small economic development organizations to large and sophisticated research institutes, who seek to make their clients more innovative, in the interests of facilitating increases in their viability, profitability, international presence, or other manifestations of their success.
Logic model	A representation of the relationships between the inputs, outputs and outcomes of a program. TEN's innovation intermediary logic model illustrates how innovation intermediaries work to fulfill their missions, and how TEN measures their impact.
Primary data	Data collected directly from a source by the person or organization conducting the research. TEN collects primary data from innovation intermediaries and their client companies through an established survey methodology.
Private financing	Financing from an individual or a private institution such as loans or angel investment.
R & D	Research and development. Companies may invest in research and development activities with the goal of improving or developing products or procedures.

Resources and capabilities	Factors describing a company's capacity to perform, for example, strategic and operational knowledge.
Significance	The likelihood that a result or relationship is caused by something other than mere random chance. The statistical significance represents the probability that random chance could explain the result. In general, a 5% or lower p-value is considered to be statistically significant.
SME	Small and medium sized enterprises, as defined by the Canadian Trade Commissioner Service, are categorized by size. Small enterprises have less than $10 million in annual sales and less than 50 employees in the service sector or less than 100 employees in the manufacturing sector. Medium-sized enterprises have less than $50 million in annual sales and 101 to 500 employees.
TEN	The Evidence Network Inc. is an independent third party company that specializes in impact assessment for organizations that support innovation.
Time to market	The elapsed time between the initial concept stage of product development and when the product is available for sale.