Entrepreneur and Venture Support Programs in Ho Chi Minh city

Appendix 3

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By

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Report Structure

We have created this document as one of three appendices to the main report, provided separately. In this report we present our in-depth assessment of the venture support programs in Ho Chi Minh City including the detailed analyses and diagrams, as well as recommendations based on the findings therein.

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, 55 out of 81 companies that had participated in venture support programs responded to a web-based survey. Table 2.1 provides further details on the response rates by program.

Table 2.1 Response Rate by Venture Support Program

Location	Program	Program Size	Invitations	Respondents	Response Rate
Ho Chi Minh City	Business Startup Support Centre	100		10	
	Agri 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 Ho Chi Minh City	~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%**

[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.

3. Demographics of the Participants in the Venture Support Programs in Ho Chi Minh City

This section of the report provides information on the 45 entrepreneurs, and company respondents from those companies participating in the venture support programs operating in Ho Chi Minh City.

Firm Characteristics of the Venture Support Program Participants in Ho Chi Minh City

The analysis of the demographics of companies participating in the venture support programs in Ho Chi Minh City revealed that:

- 60% were founded in 2014 – 2016; 26% were founded in 2012 or earlier
- 30% first engaged with their program in 2015; 25% first engaged in 2016
- 34% are pre-revenue
- 54% received financial support
- 65% do not have any founders or employees that are family members
- 81% have a composition of more than 65% of their founders or employees with university degrees
- 74% report that more than 65% of the founders or employees in their company have domestic displacement experience.
- 69% have founders or employees with international displacement experience
- 98% have plans for growth
- 47% operate in the software sector; 33% operate in the ICT sector

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

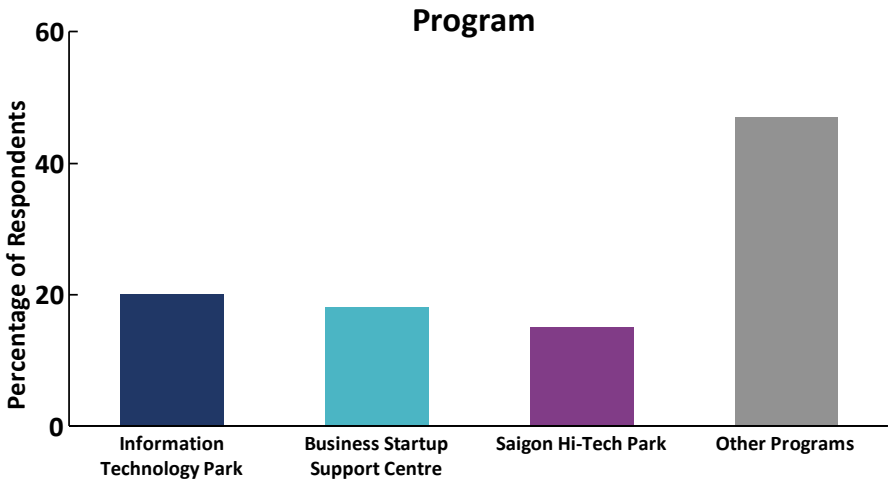

Figure 3.1

n=55

Findings:

- *20% of companies engaged with the Information Technology Park program*
- *18% of companies engaged with the Business Startup Support Centre*
- *15% of companies engaged with the Saigon Hi-Tech Park*
- *47% of companies engaged with other programs*[2]

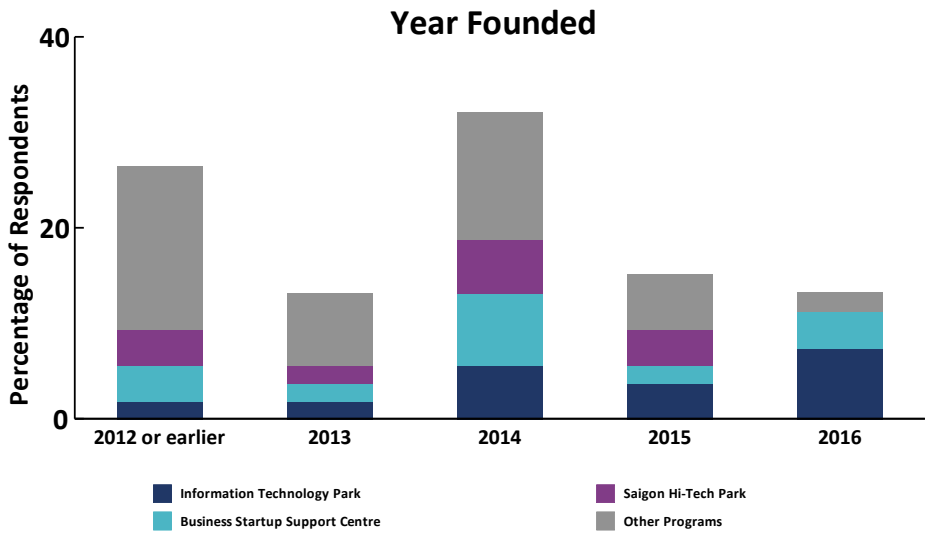

Figure 3.2

When was your company founded?

n=53

Findings:

- *60% of respondents reported that their company was founded in 2014 – 2016.*
- *26% of respondents reported that their company was founded in 2012 or earlier.*

[2] Other programs include: the Agri Business Incubator; Business Incubation and Innovation Centre – Nguyen Tat Thanh University; Nong Lam University – Center for Technology Business Incubation; Quang Trung Software Business Incubation Center, and the Ho Chi Minh City University of Technology – Technological Business Incubator

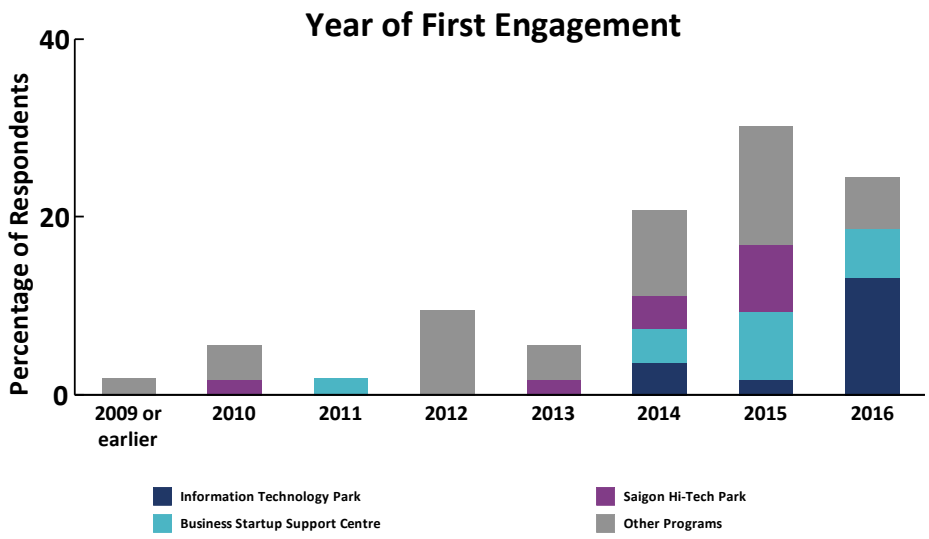

Figure 3.3

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

n=53

Findings:

- *30% of respondents reported that their company first engaged with their program in 2015.*
- *25% of respondents reported that their company first engaged with their program in 2016.*

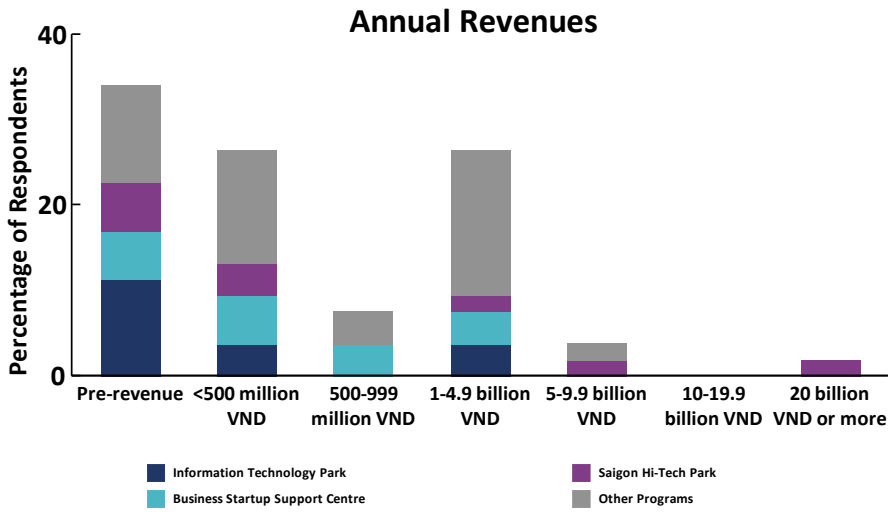

Figure 3.4

What are your company's annual revenues?

n=53

Findings:

- *34% of respondents reported that their company is pre-revenue.*
- *26% of respondents reported that their company generates less than 500 million VND in annual revenues.*

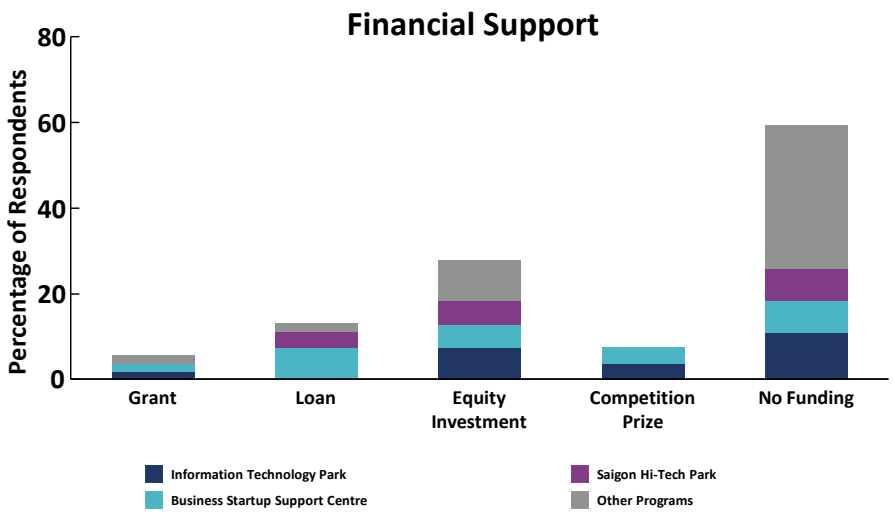

Figure 3.5

Has your company received funding?

Please select all that apply.[3]

n=54

Finding:

- *54% of responses indicate receipt of one or more types of financial support.*

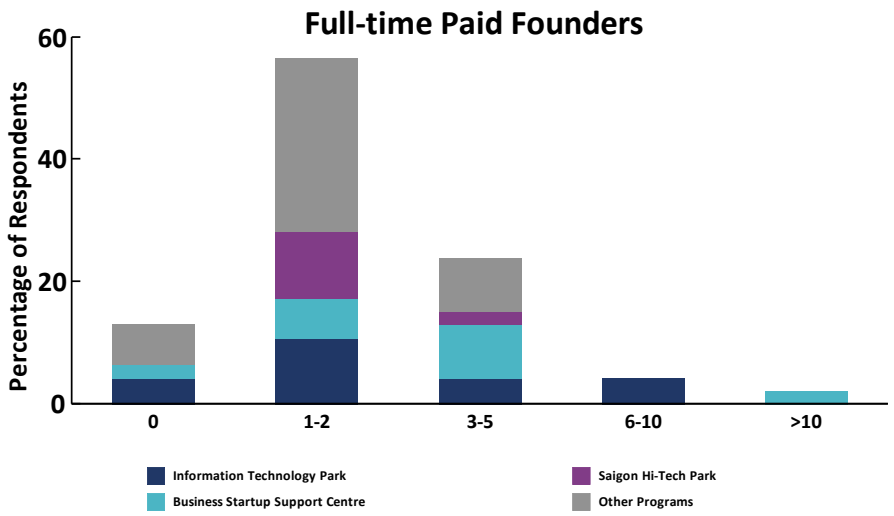

Figure 3.6

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

n=46

Findings:

- *57% of respondents reported that their company has one or two full-time, paid founders.*
- *24% of respondents reported that their company has three to five full-time, paid founders.*

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

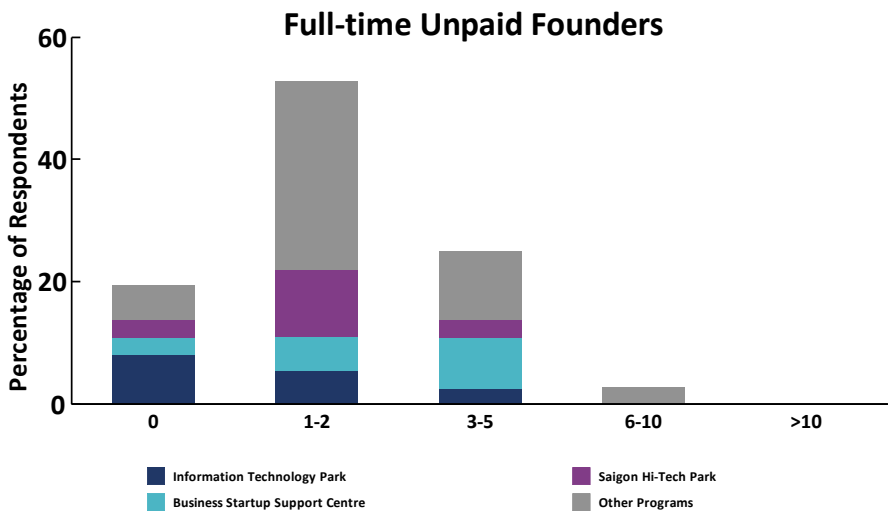

Figure 3.7

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

n=36

Findings:

- *53% of respondents reported that their company has one or two full-time, unpaid founders.*
- *25% of respondents reported that their company has three to five full-time, unpaid founders.*

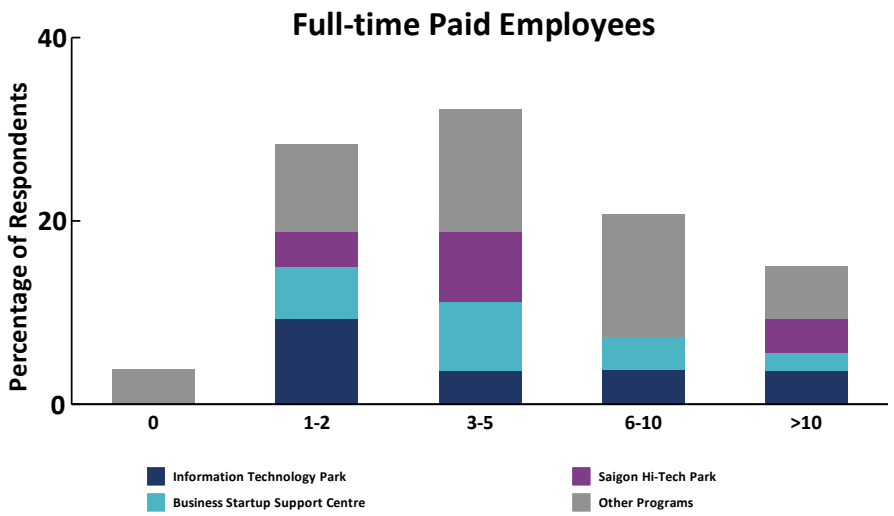

Figure 3.8

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

n=53

Findings:

- *32% of respondents reported that their company has three to five full-time, paid employees.*
- *15% of respondents reported that their company has more than ten full-time, paid employees.*

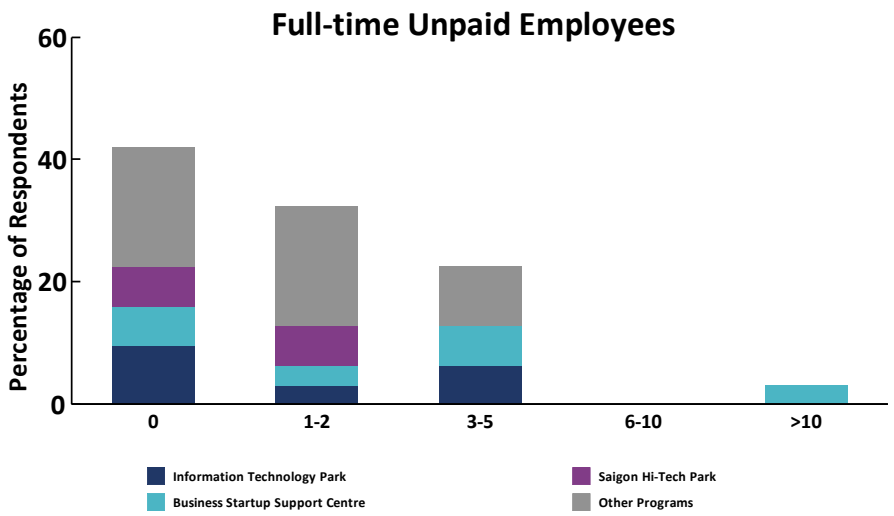

Figure 3.9

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

n=31

Findings:

- *42% of respondents reported that their company does not have any full-time, unpaid employees.*
- *32% of respondents reported that their company has one or two full-time, unpaid employees.*

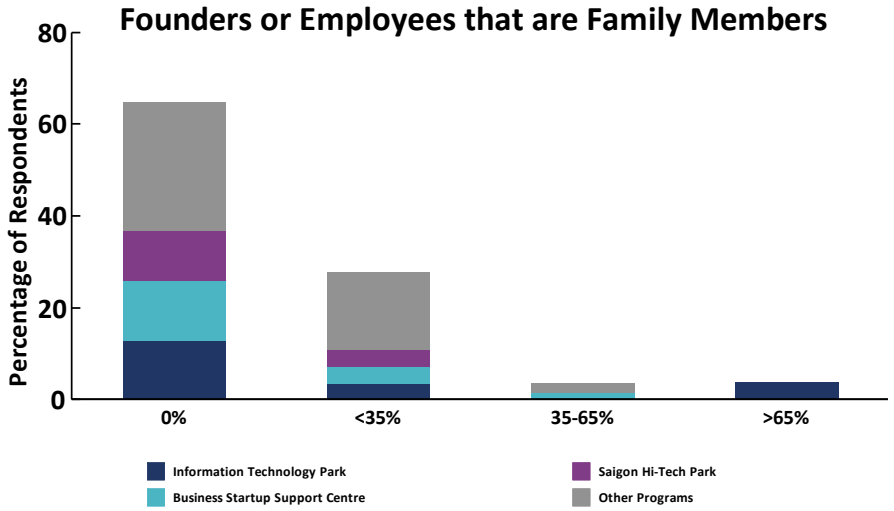

Figure 3.10

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

n=54

Finding:

- *65% of respondents reported that none of the founders or employees in their company are family members.*

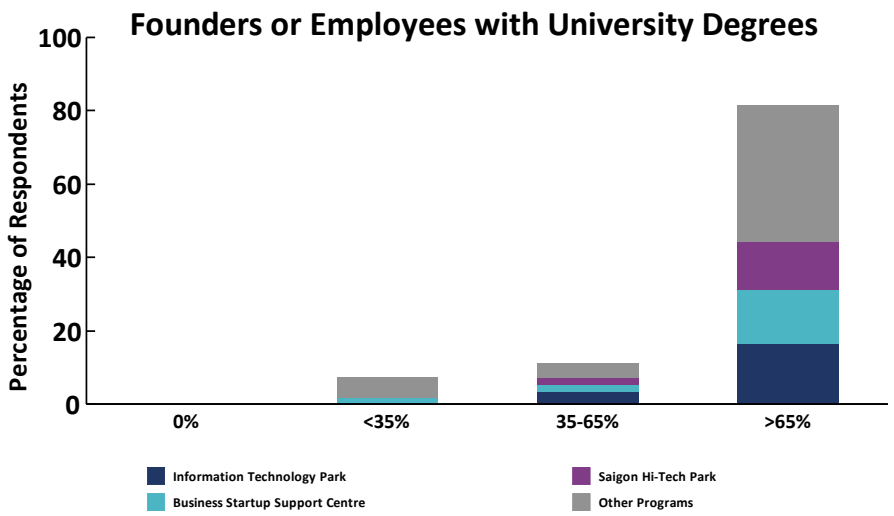

Figure 3.11

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

n=54

Finding:

- *81% of respondents reported that more than 65% of the founders or employees in their company have university degrees.*

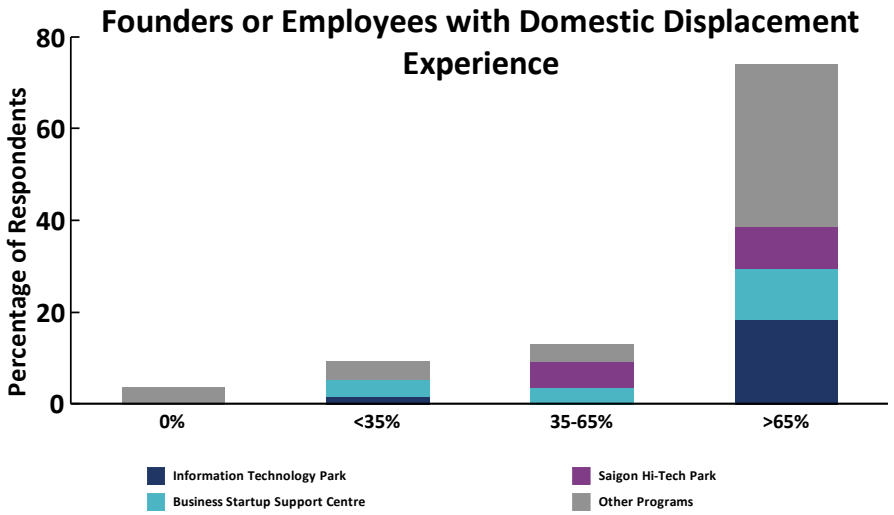

Figure 3.12

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

n=54

Finding:

- *74% of respondents reported that more than 65% of the founders or employees in their company have domestic displacement experience.*

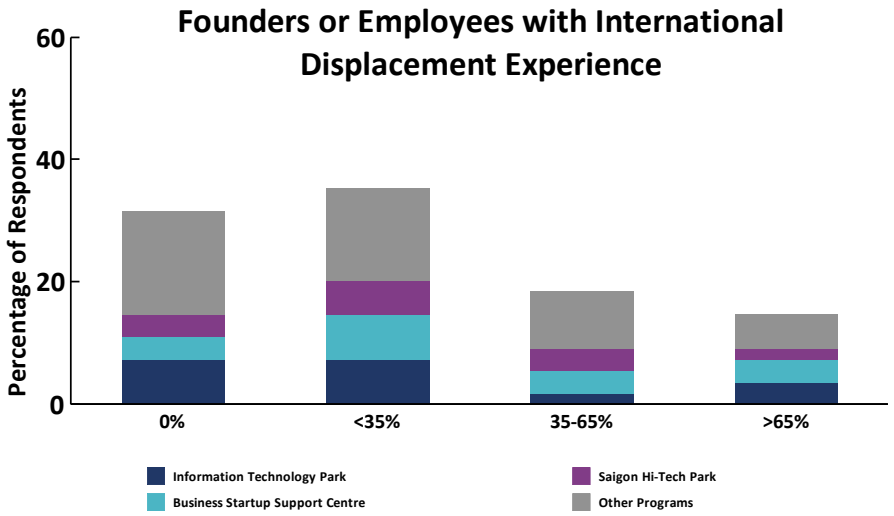

Figure 3.13

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

n=54

Finding:

- *69% of respondents reported that their company has founders or employees with international displacement experience.*

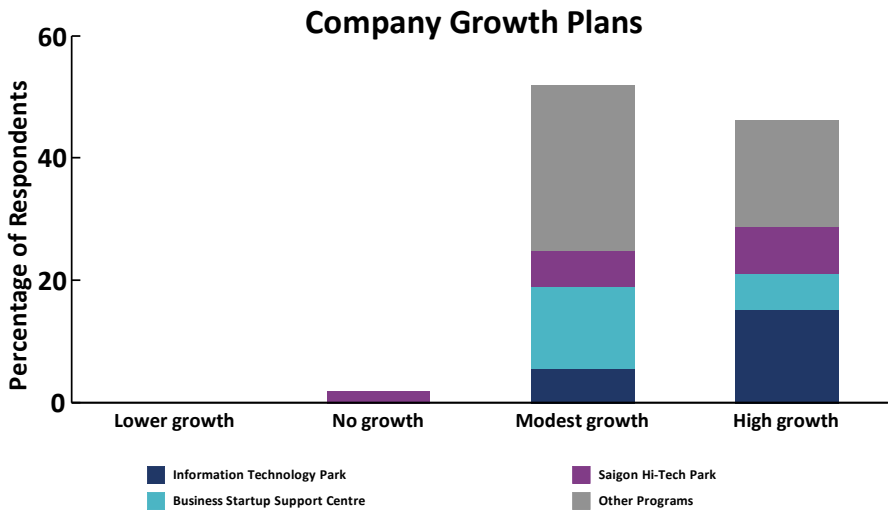

Figure 3.14

What are your company's revenue growth plans?

n=52

Findings:

- *46% of respondents reported that their company has high growth plans.*
- *52% of respondents reported that their company has modest growth plans.*

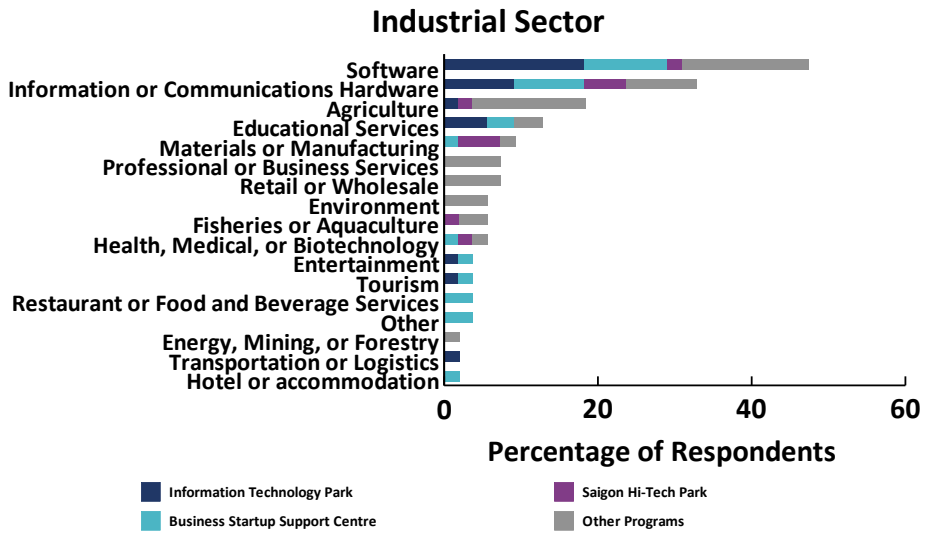

Figure 3.15

In what industrial sector does your company belong?

Please select all that apply.[4]

n=55

Findings:

- *47% of responses indicate companies belong in the software sector.*
- *33% of responses indicate companies belong in the information or communications hardware sector.*

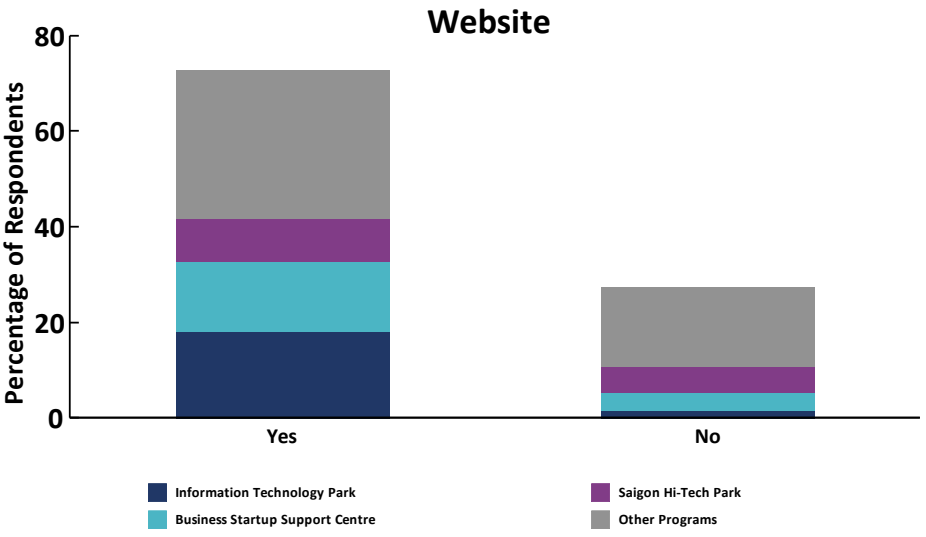

Figure 3.16

Does your company have a website?

n=55

Finding:

- *73% of respondents reported that their company has a website.*

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

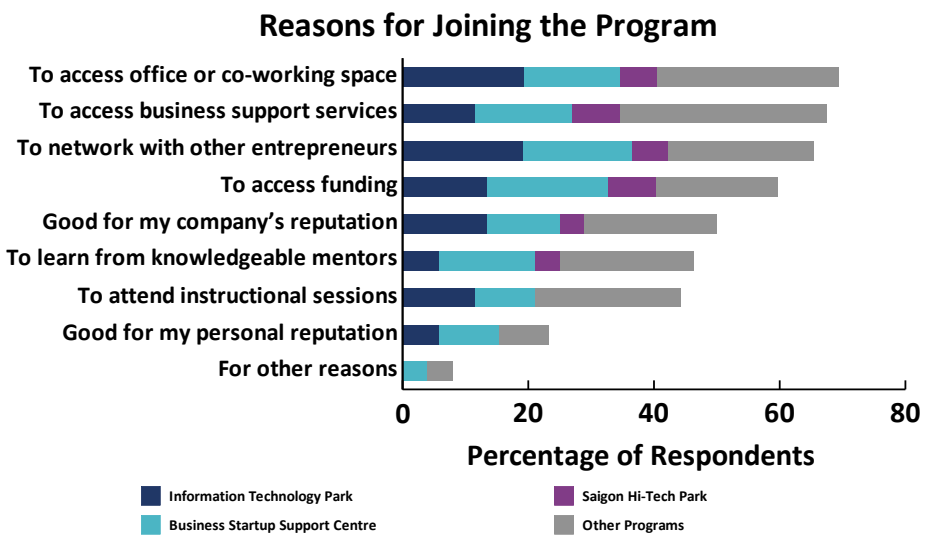

Figure 3.17

Why did you join [Program]?

Please select all that apply.[5]

n=52

Finding:

- *69% of responses indicate companies joined the program to access office or co-working space.*

Entrepreneur Characteristics of the Venture Support Program Participants in Ho Chi Minh City

The analysis of the demographics of the entrepreneurs of companies in Hi Chi Minh City participating in the venture support programs revealed that:

- 69% of entrepreneurs are 35 or under
- 88% are male
- 48% have a college or university certificate; 37% have a master's or PhD
- 71% have either studied or worked in a foreign country
- 90% did not have a family business

This section provides information about the age, gender, level of education, international experience, prior experience in family business, internship experience, prior work experience, and Facebook network of the entrepreneurs participating in the venture support programs in Da Nang. 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.

[5] 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%.

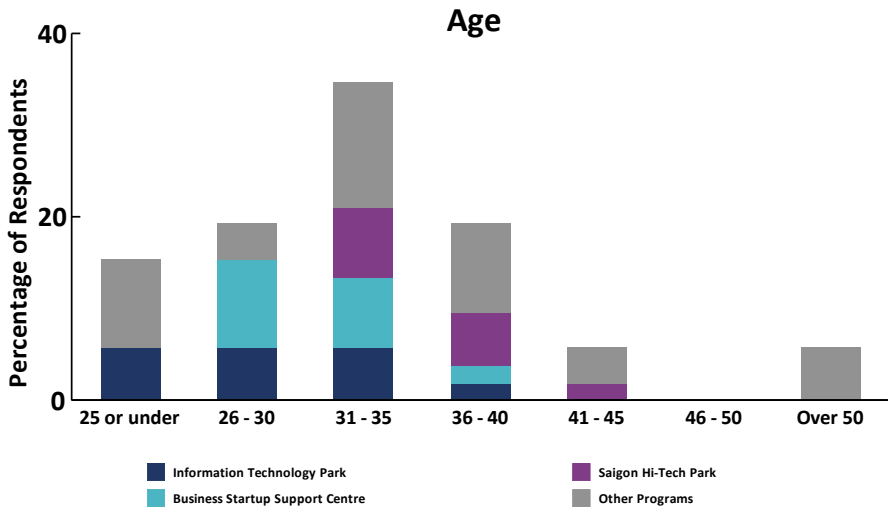

Figure 3.18

What is your age?

n=52

Findings:

- *69% of respondents reported that they are 35 or younger.*
- *15% of respondents reported that they are in the 25 or under age category.*

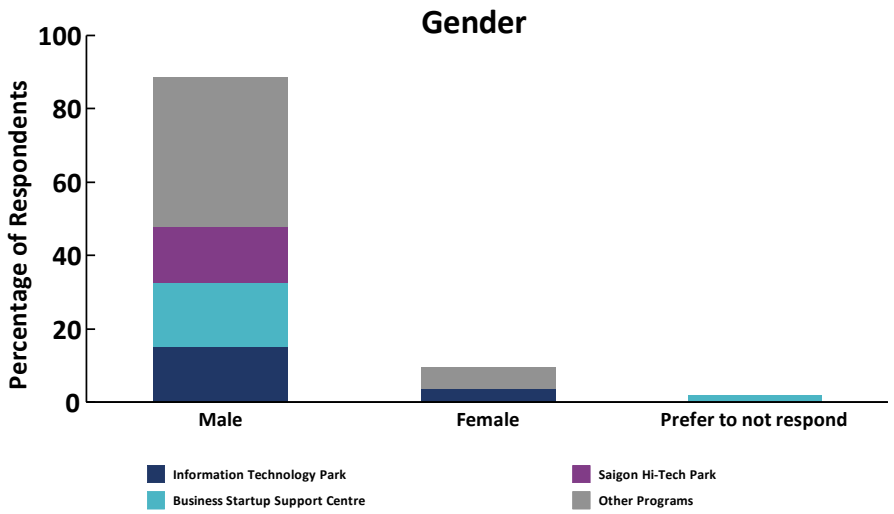

Figure 3.19

What is your gender?

n=52

Findings:

- *88% of respondents reported that they are male.*
- *10% of respondents reported that are female.*

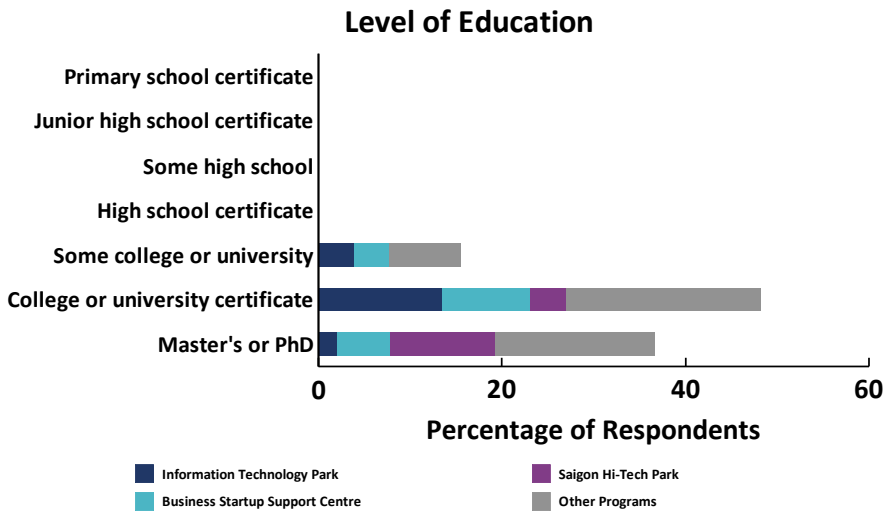

Figure 3.20

What is your highest level of education?

n=52

Findings:

- *48% of respondents reported that they have a college or university certificate.*
- *37% of respondents reported that they have a Master's or PhD.*

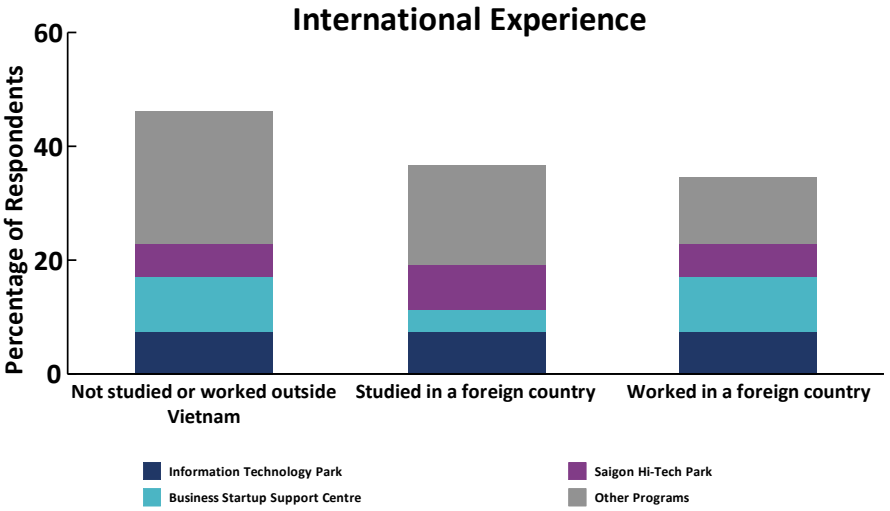

Figure 3.21

Have you studied or worked outside of Vietnam?

Please select all that apply. [6]

n=52

Finding:

- *71% of responses indicated the entrepreneur had either studied or worked, or both studied and worked, in a foreign country.*

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

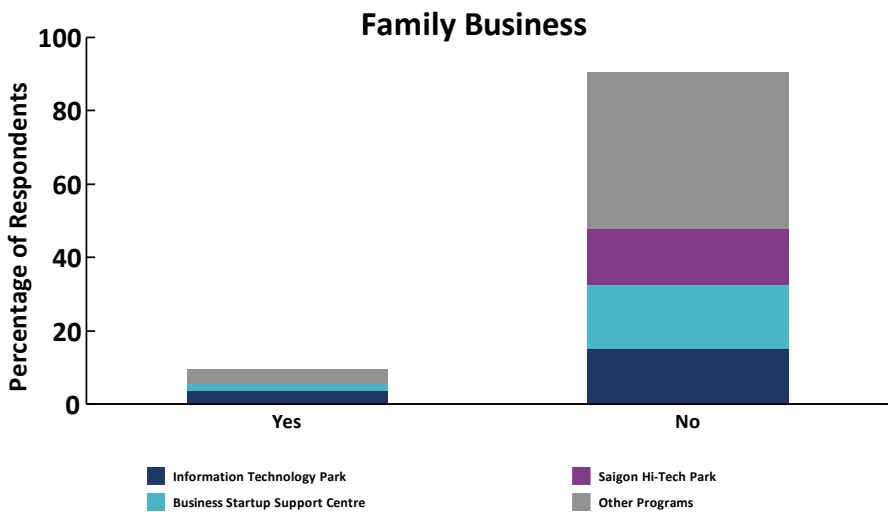

Figure 3.22

Did your parents own a business?

n=52

Finding:

- *90% of respondents reported that their parents did not own a business.*

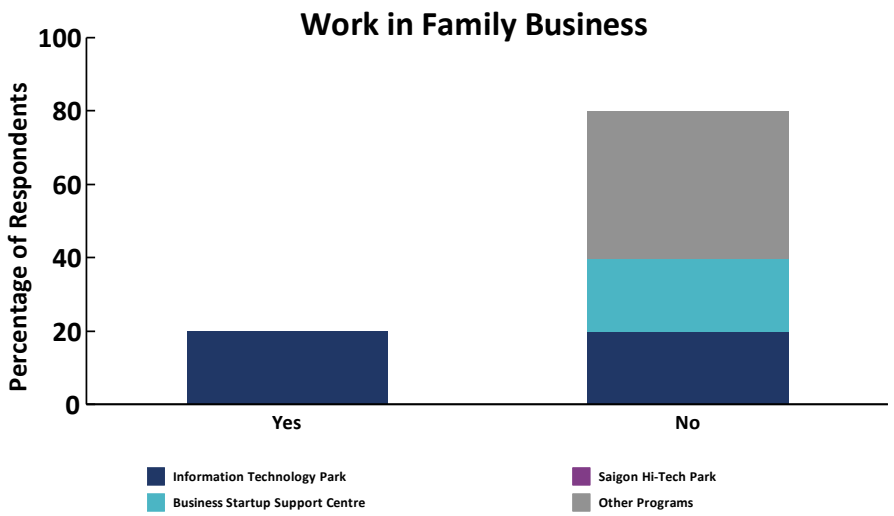

Figure 3.23

Did you work in your parents' business?

n=5

Finding:

- *80% of respondents that reported their parents do own a business do not work in that business.*

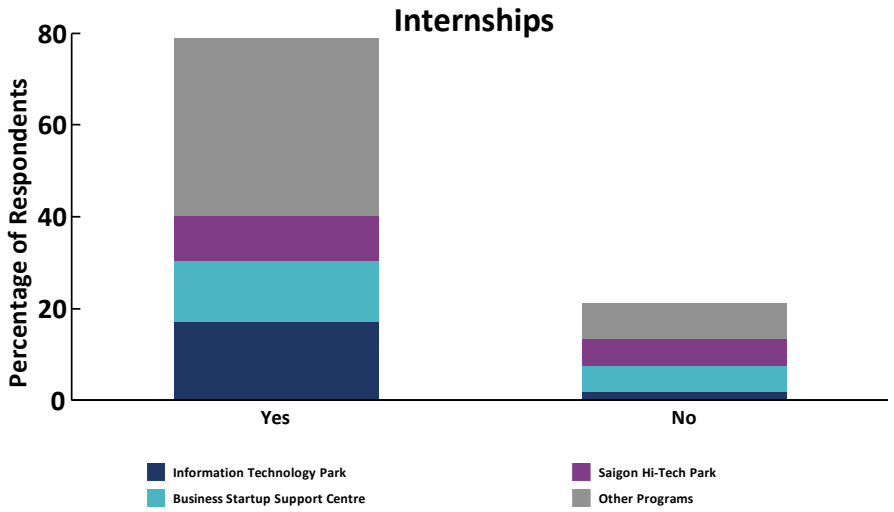

Figure 3.24

Did you have an internship as a student?

n=52

Finding:

- *79% of respondents reported that they had an internship as a student.*

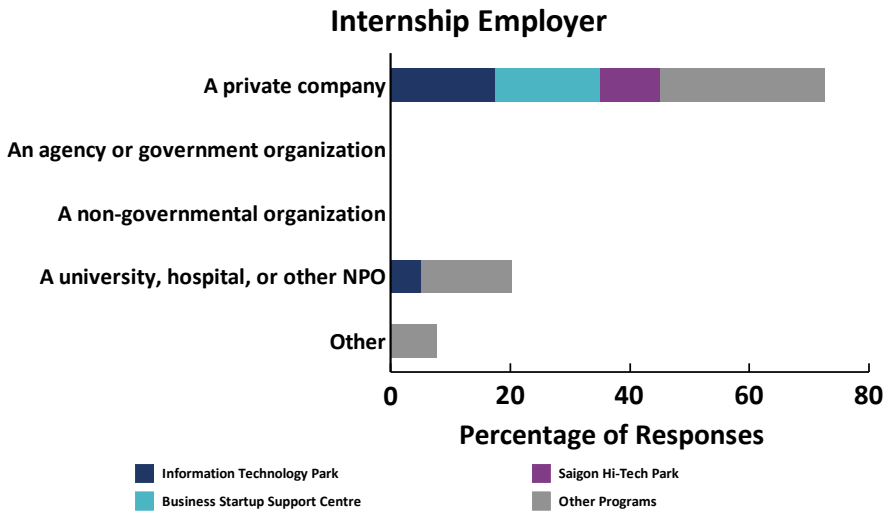

Figure 3.25

Please specify your internship employer.

n=40

Finding:

- *73% of respondents that reported they had an internship as a student specified a private company as their employer.*

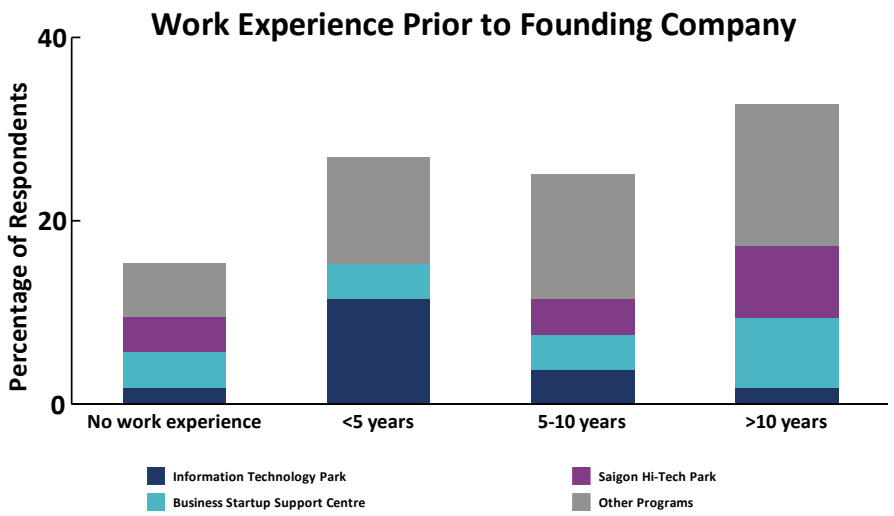

Figure 3.26

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

n=52

Findings:

- *33% of respondents reported that they had more than ten years of work experience prior to founding their company.*
- *15% of respondents reported that they had no work experience prior to founding their company.*

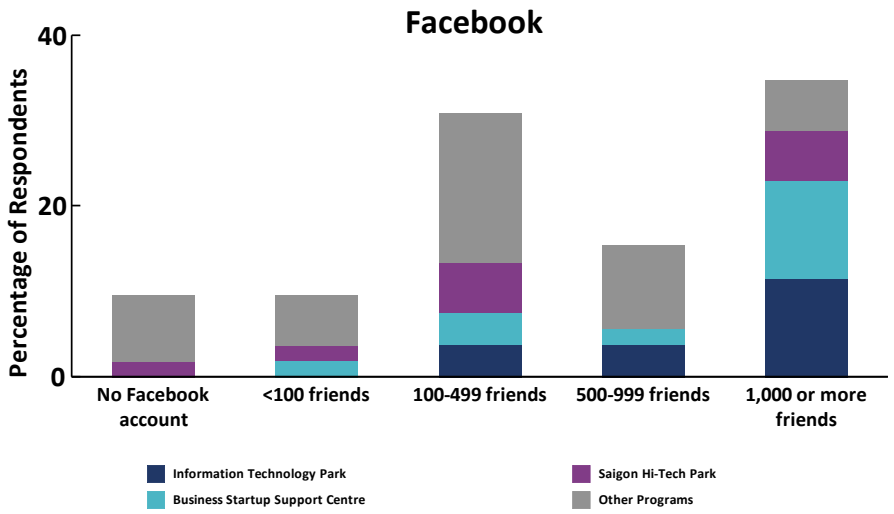

Figure 3.27

How many Facebook friends do you have?

n=52

Findings:

- *35% of respondents reported that they have 1,000 or more Facebook friends.*
- *46% of respondents reported that they have 100 – 999 Facebook friends.*

4. Use of Services by Venture Support Program Participants in Ho Chi Minh City

Ninety-six percent of companies in Ho Chi Minh City used the program support services (12% high intensity of use, 31% moderate intensity of use, 54% 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 4.1.

Table 4.1 Support Services Offered

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 Ho Chi Minh City	- 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. In Ho Chi Minh City, all of the venture support programs are categorized as full-time programs (that is, provision of full-time Mentoring, Networking, Instruction, Working space, Access to funding, and Business support services). Respondents were asked to indicate their intensity of use of these services on a four-point scale from 'did not use' (coded as 1) to 'high intensity' (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.

Figure 4.1 shows the responses given, and the number of responses ('n') for the usage of the full-time support services.

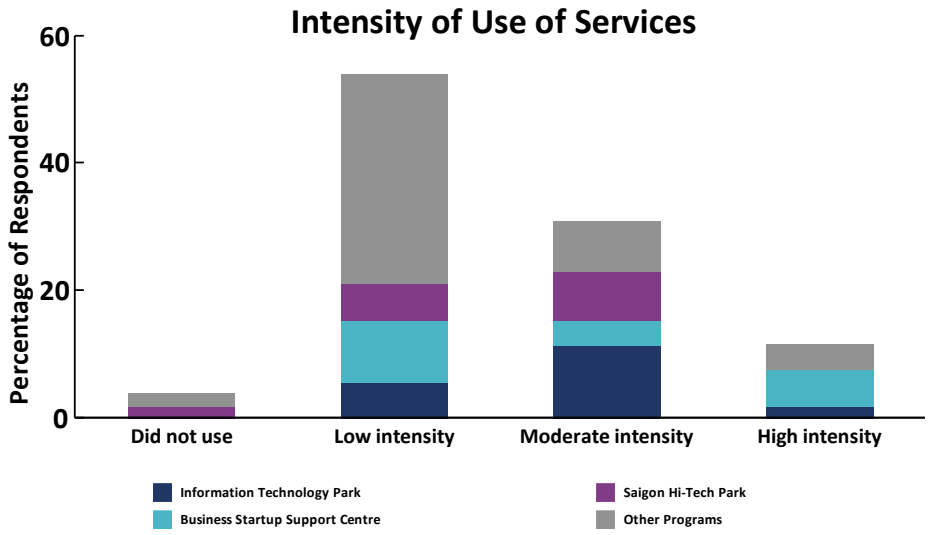

Figure 4.1

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

n=52

Findings:

- *96% of all respondents reported that their company used the program support services (12% high intensity of use, 31% moderate intensity of use, 54% low intensity of use).*
- *100% of the Information Technology Park program participants reported that their company used the program support services (10% high intensity of use, 60% moderate intensity of use, 30% low intensity of use).*
- *100% of the Business Startup Support Centre program participants reported that their company used the program support services (30% high intensity of use, 20% moderate intensity of use, 50% low intensity of use).*
- *88% of Saigon Hi-Tech Park program participants reported that their company used the program support services (50% moderate intensity of use, 38% low intensity of use).*
- *88% of Saigon Hi-Tech Park program participants reported that their company used the program support services (50% moderate intensity of use, 38% low intensity of use).*
- *96% of participants in other venture support programs in Ho Chi Minh City reported that their company used the program support services (8% high intensity of use, 17% moderate intensity of use, 71% low intensity of use)*

Satisfaction with Support Services

Ninety-eight percent of companies in Ho Chi Minh City were satisfied with the program support services (52% highly satisfied, 46% 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 4.2 below shows the responses given, and the number of responses ('n') for the question.

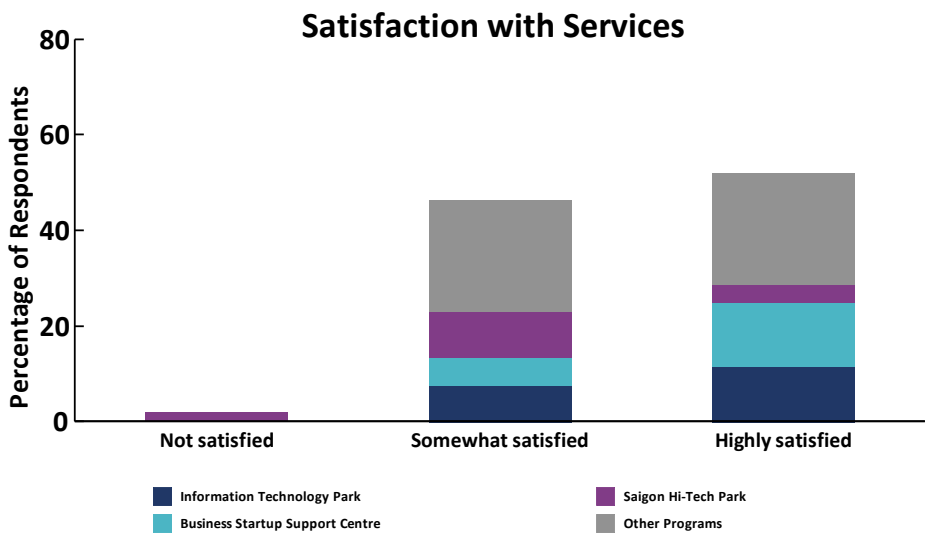

Figure 4.2

To what degree are you satisfied with the services provided?

n=52

Finding:

- *98% of respondents reported that were satisfied with the program support services (52% highly satisfied, 46% somewhat satisfied).*

5. Impact on Resources and Capabilities of Venture Support Program Participants in Ho Chi Minh City

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.

Company respondents in Ho Chi Minh City 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 in Ho Chi Minh City is greater for companies that have three or more full-time, unpaid founders, five or fewer full-time, paid employees, three or more full-time, unpaid employees, and are pre-revenue.

The average impact of the venture support programs on the resources and capabilities of companies in Ho Chi Minh City is also greater for companies with entrepreneurs that are 25 or younger, have a family business, have a college or university certificate, had an internship, had less than five years of work experience prior to founding the company, have not studied or worked in a foreign country, and have 1,000 or more Facebook friends.

Further, the average impact on companies' resources and capabilities in Ho Chi Minh City 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 5.1 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. For convenience, explanatory examples may also be found in Table 5.1.

Table 5.1 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 domestically 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 5.1 shows the average impact responses for the three resources and capabilities impact measures.[7] Reading clockwise, we can see that the average impacts on resources and capabilities are at the low end of the 'a lot' of impact range on improvements to the *Business expertise* measure, the high end of the 'a little' impact range on improvements to the *Business network expansion* measure, and at the middle of the 'a little' impact measure for the *Knowledge of customer needs* measure. This suggests that among the three company resources and capabilities impact measures, the venture support programs have the greatest average impact on improvements to companies' ability to gain business expertise and expand their business networks, and lower impact on improvements to companies' ability to learn about their customers.

[7] 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.

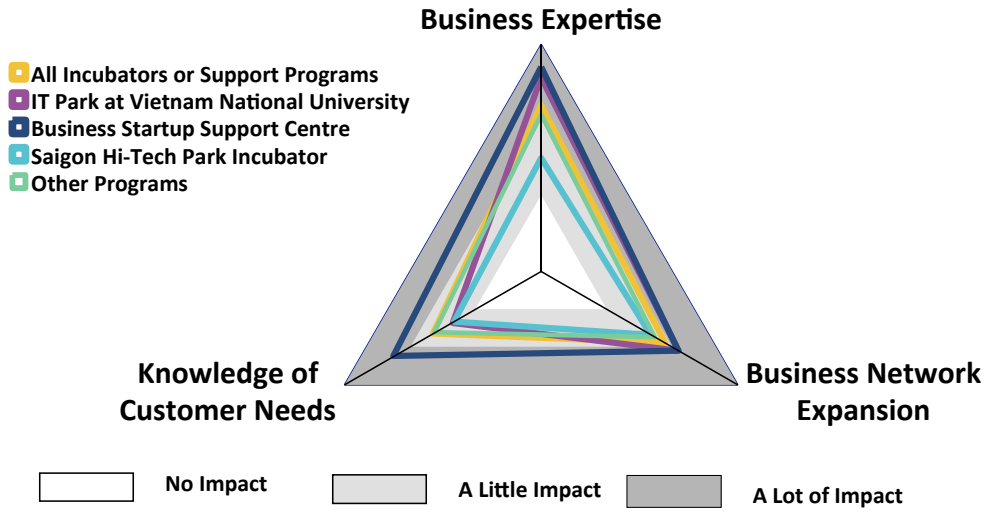

Figure 5.1 Average Impact of the Venture Support Programs on the Resources and Capabilities of Companies in Ho Chi Minh City

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 5.2 shows the percentage of companies that attributed positive impact for the three resources and capabilities impact measures. We see in Figure 5.2 that in Ho Chi Minh City a greater percentage of companies attribute positive impact on their *Business expertise* measure.

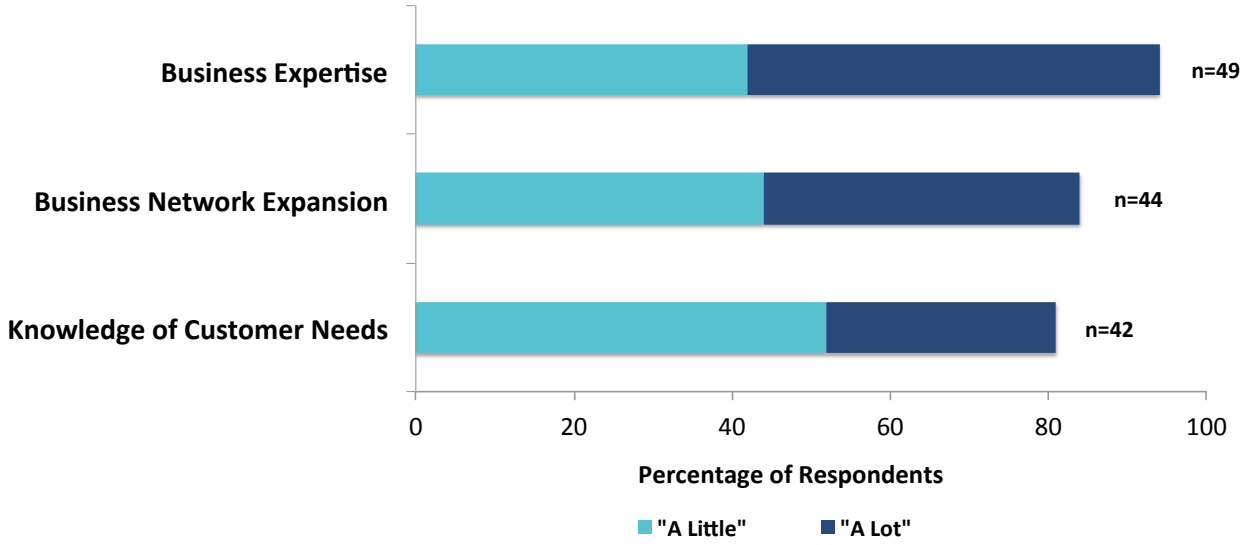

Figure 5.2 Percentage of Companies Attributing Positive Impact on their Resources and Capabilities

Respondents in Ho Chi Minh City reported the following impacts on improvements to their companies' resources and capabilities to be 'A Lot', or 'A Little':

- *Business expertise (94% positive impact)*
  (52% 'A Lot', 42% 'A Little)

- *Business network expansion (85% positive impact)*
  (40% 'A Lot', 44% 'A Little)

- *Knowledge of customer needs (81% positive impact)*
  (29% 'A Lot', 52% 'A Little)

The frequency distributions that follow, Figures 5.3 to 5.5 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).

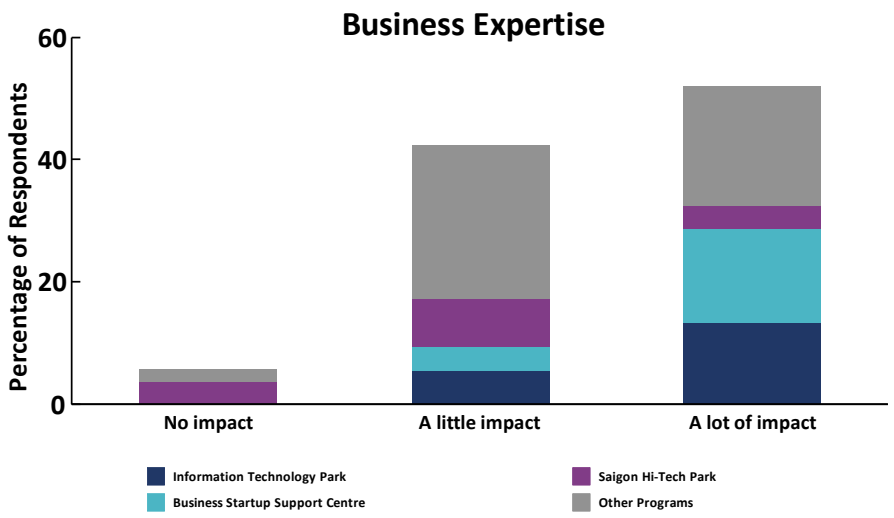

Figure 5.3

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

n=52; Average=7.3

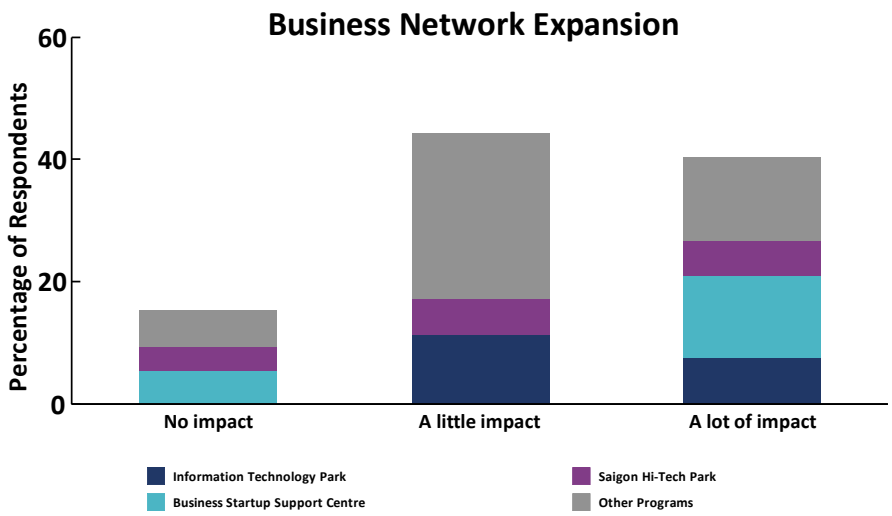

Figure 5.4

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

n=52; Average=6.3

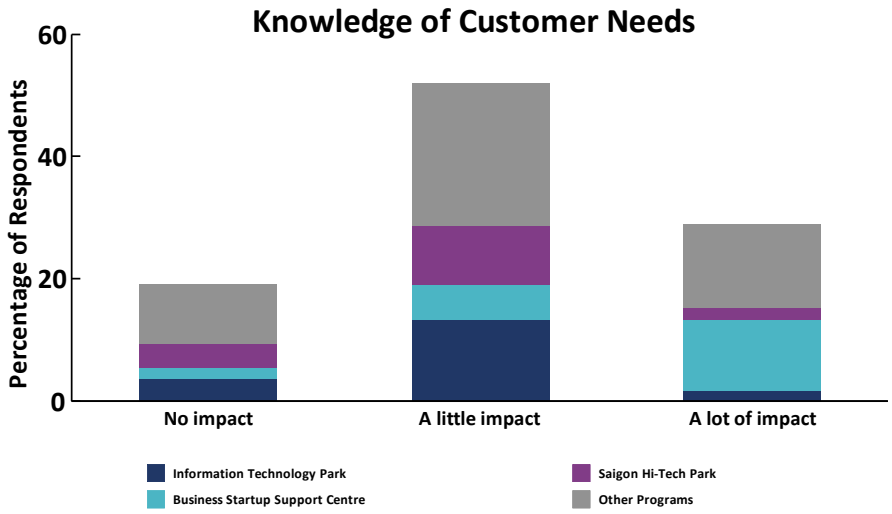

Figure 5.5

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

n=52; Average=5.5

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.

<u>The Venture Support Programs' Impact: Company Attributes</u>

From the information segmented by company attributes, for Ho Chi Minh City, we find that:

- The average impact on companies' resources and capabilities is greater for those that have five or fewer full-time, paid employees, compared to those have six or more full-time, paid employees (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for those that have three or more full-time, unpaid employees, compared to those have two or fewer full-time, unpaid employees (significant at least at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for those that are pre-revenue compared to those that generate revenues (significant at the 95% confidence level).

The Venture Support Programs' Impact: Entrepreneur Attributes

From the information segmented by entrepreneur attributes, for Ho Chi Minh City, we find that:

- The average impact on companies' resources and capabilities is greater for those with entrepreneurs that are 25 or younger, compared to those with entrepreneurs that are 26 or older (significant at the 99% confidence level).

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

- The average impact on companies' resources and capabilities is greater for those with entrepreneurs that have a college or university certificate, compared to those with entrepreneurs that have a master's or PhD (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for those with entrepreneurs that had an internship, compared to those with entrepreneurs that did not have an internship (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for those with entrepreneurs that 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 work experience (significant at the 95% confidence level).

- The average impact on companies' resources and capabilities is greater for those 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 95% confidence level).

- The average impact on companies' resources and capabilities is greater for those with entrepreneurs that have 1,000 or more Facebook friends, compared to those with entrepreneurs that have less than 100 Facebook friends, or do not have a Facebook account (significant 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 Ho Chi Minh City, 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).

6. Impact on Performance of Venture Support Program Participants in Ho Chi Minh City

The venture support programs in Ho Chi Minh City are having a greater average impact on companies' *Change in annual revenues* and *Change in employment*, and a lower average impact on companies' ability to attract funding.

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 2015, were founded in 2014, have three or more full-time, unpaid employees, generate revenues, and have entrepreneurs that are 30 or younger.

Further, the average impact on companies' performance is greater for those that used the support services with 'moderate' or 'high' intensity.

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. Company performance improvements occur as a consequence of the impact that the venture support programs have on improving companies' resources and capabilities. Measuring impact on companies' performance is important because it corresponds to the venture support programs' mission and provides the hard evidence that stakeholders seek.

Table 6.1 shows the three performance impact measures that were selected to assess the venture support programs' impact on company performance.

Table 6.1

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

Figure 6.1 shows the average impact responses for the three performance impact measures.[8] Reading clockwise, we can see that the average impacts on performance are at the lower end of the 'a little' impact range on improvements to the *Change in annual revenues* measure, at a slightly higher point of the 'a little' 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 number of employees, and increase their annual revenues.

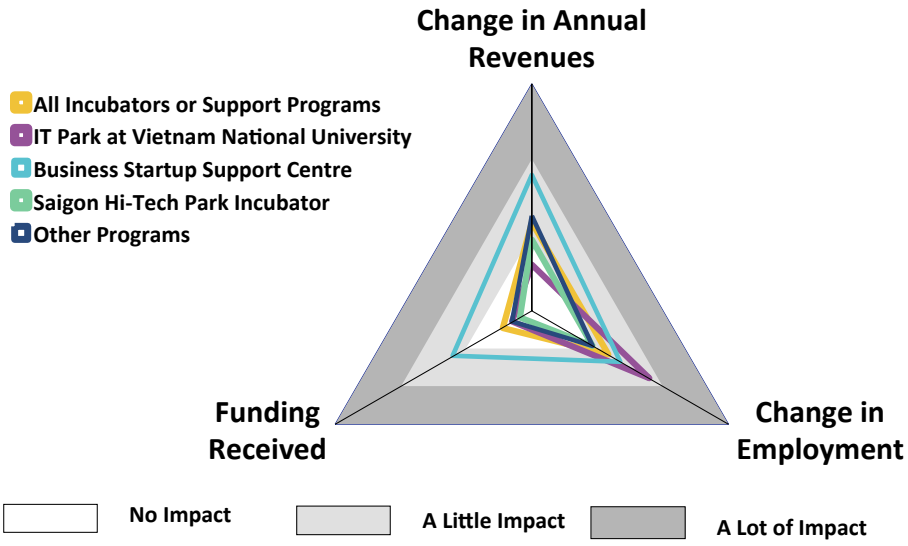

Figure 6.1 Average Impact of the Venture Support Programs on the Performance of Companies in Ho Chi Minh City

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).

Figure 6.2 shows the percentage of companies that attributed positive impact for the three performance impact measures. We see in Figure 21.2 that in Ho Chi Minh City a greater percentage of companies attribute positive impact on their *Change in annual revenues* measure, though *Change in employment* follows in close second.

[8] 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.

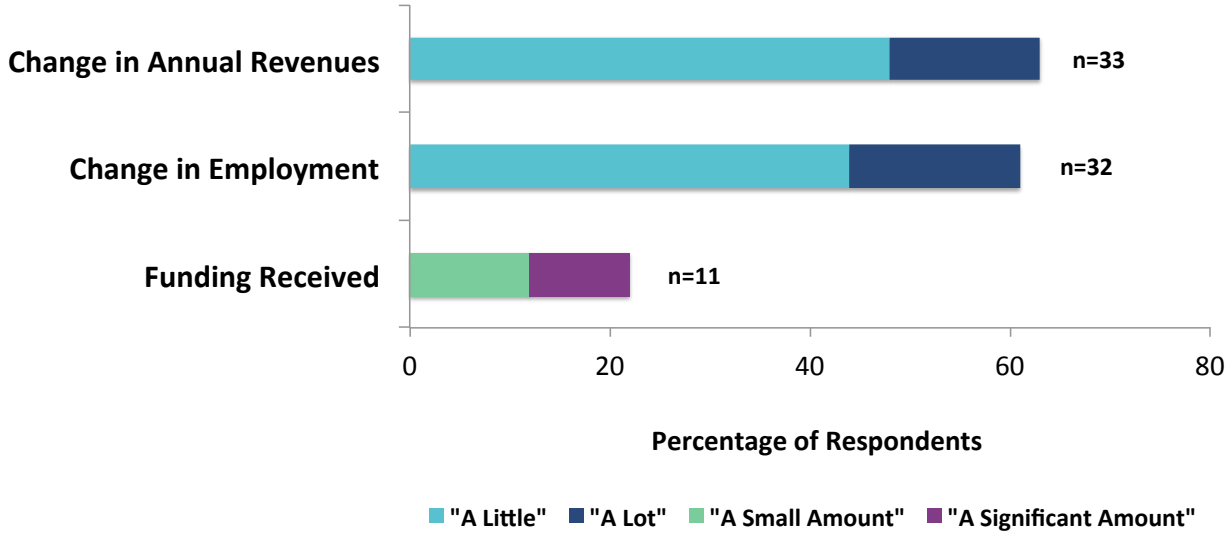

Figure 6.2 Percentage of Companies in Ho Chi Minh City Attributing Positive Impact on their Performance

Respondents 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 (63% positive impact)*
  (15% 'A Lot', 48% 'A Little')

- *Change in employment (62% positive impact)*
  (17% 'A Lot', 44% 'A Little')

- *Funding received (22% positive impact)*
  (10% 'A significant amount', 12% 'A small amount')

The frequency distributions that follow, Figures 6.3 to 6.5 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).

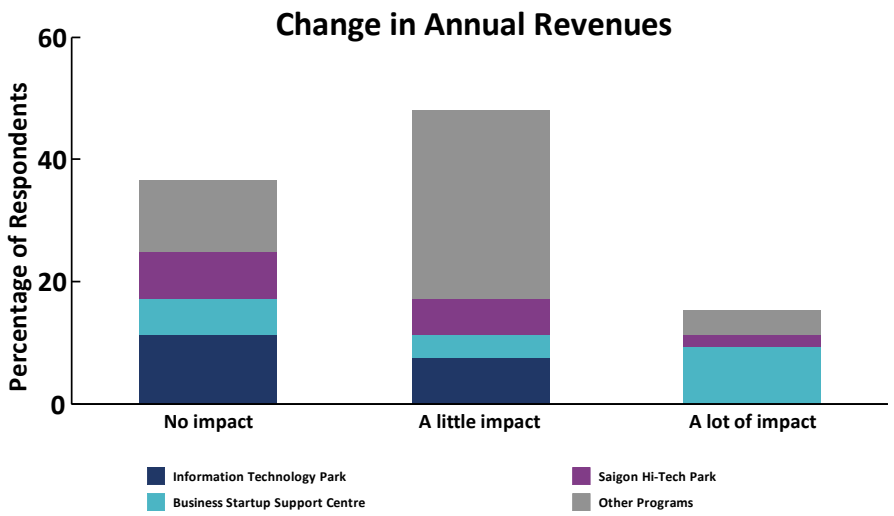

Figure 6.3

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

n=52; Average=3.9

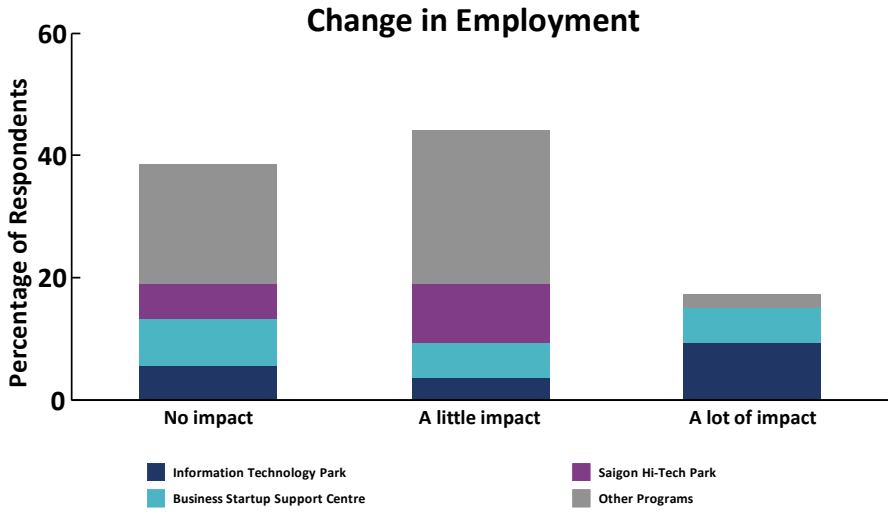

Figure 6.4

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

n=52; Average=3.9

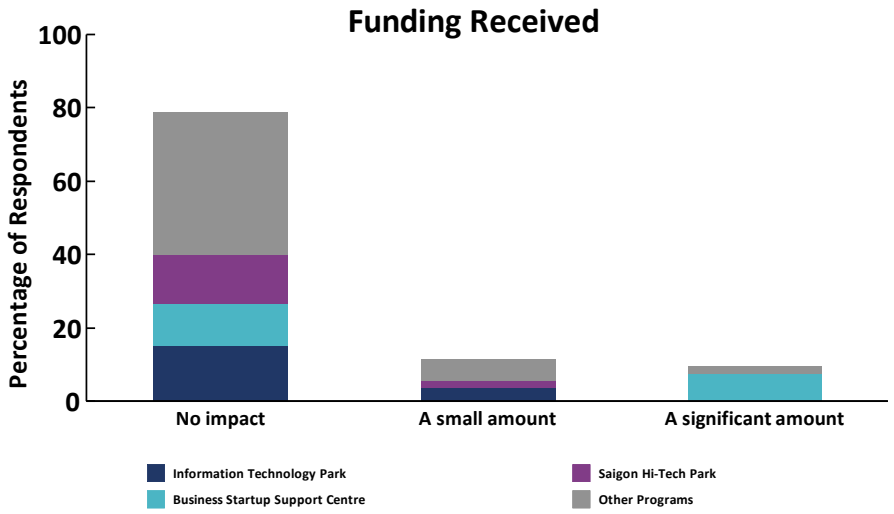

Figure 6.5

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

n=52; Average=1.5

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 Ho Chi Minh City, we find that:

- The average impact on companies' performance is greater for companies that first engaged in 2014 or 2015, compared to those that first engaged in 2013 or earlier, or 2016 (significant at least at the 95% confidence level).

- The average impact on companies' performance is greater for companies that were founded in 2014, 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 have three or more full-time, unpaid employees, compared to those that have less than three full-time, unpaid employees (significant at the 95% confidence level).

- The average impact on companies' performance is greater for companies that generate revenues, compared to those are pre-revenue (significant at least at the 95% confidence level).

The Venture Support Programs' Impact: Entrepreneur Attributes

From the information segmented by entrepreneur attributes, for Ho Chi Minh City, we find that:

- The average impact on companies' performance is greater for companies with entrepreneurs that are 30 or younger, compared to those with entrepreneurs that are 36 or older (significant 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 Ho Chi Minh City, we find that:

- The average impact on companies' performance 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 95% confidence level).

7. Company Attributes Correlated with Growth

With regard to venture support program participants in Ho Chi Minh City, older companies are more likely to grow in terms of annual revenues.

Additionally, companies that have fewer employees with university degrees are more likely to grow in terms of number of founders and employees.

To better understand the characteristics and behaviours of growing companies we conducted statistical examinations of the relationships between company growth, in terms of annual revenues and employment, and predictors of this growth.

Models 1 and 2 shown below in Table 7.1 present the correlation results[9] on company attributes, and entrepreneur attributes with Annual revenues, and Number of founders and employees respectively, based on the sample of companies in Ho Chi Minh City.

Model 1 presents the correlation results for company and entrepreneur attributes with Annual revenues. In Model 1, Company age is significantly correlated with Annual revenues (significant at the 99% confidence level), indicating that older companies are more likely to achieve growth in terms of annual revenues.

Model 2 presents the correlation results for company attributes, and entrepreneur attributes with Number of founders and employees. In Model 2, Employees that have university degrees is significantly and negatively correlated with Number of founders and employees (significant at the 90% confidence level), indicating that companies that have fewer employees with university degrees are more likely to achieve growth in terms of number of founders and employees.

Table 7.1 Correlation Results for Supported Companies in Ho Chi Minh City

Variable	Model 1 Annual Revenues	Model 2 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		- α
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 = p < .1, * = p < .05, ** = p < .01, *** = p < .001

[9] We did not present regression analysis here due to the low adjusted R^2 of the regression models. Instead, we used correlation analysis to explore which company or entrepreneur attributes are related to companies' growth in size. Correlation analysis is used to identify the association between two variables, but not to predict the relationship among variables.

8. Predictors of Impact

Regression Variables

We conducted correlations and linear regression analyses to explain how impact on company resources and capabilities, and performance is achieved. Table 8.1 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.[10]

Table 8.1 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[11]
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

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

[11] For full-time programs, the *Use of support service* variable is calculated as the average of *Mentoring*, *Networking, Instruction, Working space, Access to funding*, and *Business support services*.

Table 8.1 (Continued)

Type of Measures	Measures	Regression Variables
Impact on performance measures	*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*	Company age
	• *Annual revenues* • *Number of employees*	Size
	• *Company growth plans*	Growth plan
	• *Financial support ($)*	Funding received
	• *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)

Table 8.1 (Continued)

Type of Measures	Measures	Regression Variables
Controls	• *Entrepreneurs have worked or studied in a foreign country*	International experience
	• *Number of Facebook friends*	Facebook friends

Descriptive Statistics

Table 8.2 presents a descriptive statistics and correlations table, based on the sample of the companies that engaged with the venture support programs in Ho Chi Minh City. For each variable, Table 8.2 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

- Smaller, younger companies and those that use the support services with greater intensity are more likely to attribute impact on their resources and capabilities.

Indirect impact

- Companies that attribute 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 be founded by older entrepreneurs.
- Younger companies are more likely to have more employees that have studied or worked in a foreign country, and to be founded by entrepreneurs with more Facebook friends.
- Smaller companies are more likely to use support services with a higher intensity, and to attribute the Ho Chi Minh City programs with greater impact on their resources and capabilities.
- Companies that have more employees that have studied or worked in a foreign country are more likely to have more employees with university degrees, to be founded be entrepreneurs whose parents own a business, and to be founded be entrepreneurs with international experience.
- Older entrepreneurs are more likely to have a higher level of education, to have more years of work experience, and to have international experience.
- Younger entrepreneurs are more likely to have more Facebook friends, and to attribute the Ho Chi Minh City programs with greater impact on their companies' resources and capabilities.
- Entrepreneurs that have more Facebook friends are more likely to use support services with a higher intensity.

All correlation findings reported above are significant at least at the 95% confidence level.

Table 8.2 Descriptive Statistics and Correlations Table of Supported Companies in Ho Chi Minh City

	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	53	53	52	55	54	54	54	54	55	52	51	52	52	52	52	52	52	52	52
Mean	3.25	$2.7x10^{10}$	3.44	7.6 K	2.17	3.57	1.46	3.74	.72	3.04	.90	.25	6.21	7.45	.54	731.7	2.50	.30	.33
Standard deviation	1.36	$8.4x10^{10}$	.54	16.1 K	1.04	.82	.75	.59	.45	1.48	.30	.44	.70	5.87	.50	604.1	.75	1.05	1.11
Minimum	1	0	1	0	1	1	1	1	0	1	0	0	4	0	0	0	1	-2.03	-1.02
Maximum	5	$6.0x10^{11}$	4	200.0 K	4	4	4	4	1	7	1	1	7	15	1	1500	4	1.63	3.34

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

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 the five models may be found in Table 8.3. below. Model 1 regresses control variables, and intensity of use of support services against direct impact on companies' resources and capabilities, based on sample of the Ho Chi Minh City programs. Models 2, 3, 4, and 5 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 Ho Chi Minh City programs.

Model 1, which includes control variables and intensity of use of support services, explains 39% 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% confidence level), indicating that companies that used support services with a higher intensity are more likely to attribute the Ho Chi Minh City 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 Ho Chi Minh City 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 Ho Chi Minh City 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 Ho Chi Minh City programs with impact on resources and capabilities.

Model 2, depicted in Figure 8.1, 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 2 shows that Direct impact factor is significantly associated with Indirect impact factor (significant at the 99% confidence level), indicating that companies reported higher impact on resources and capabilities are more likely to attribute the Ho Chi Minh City programs with impact on company performance.

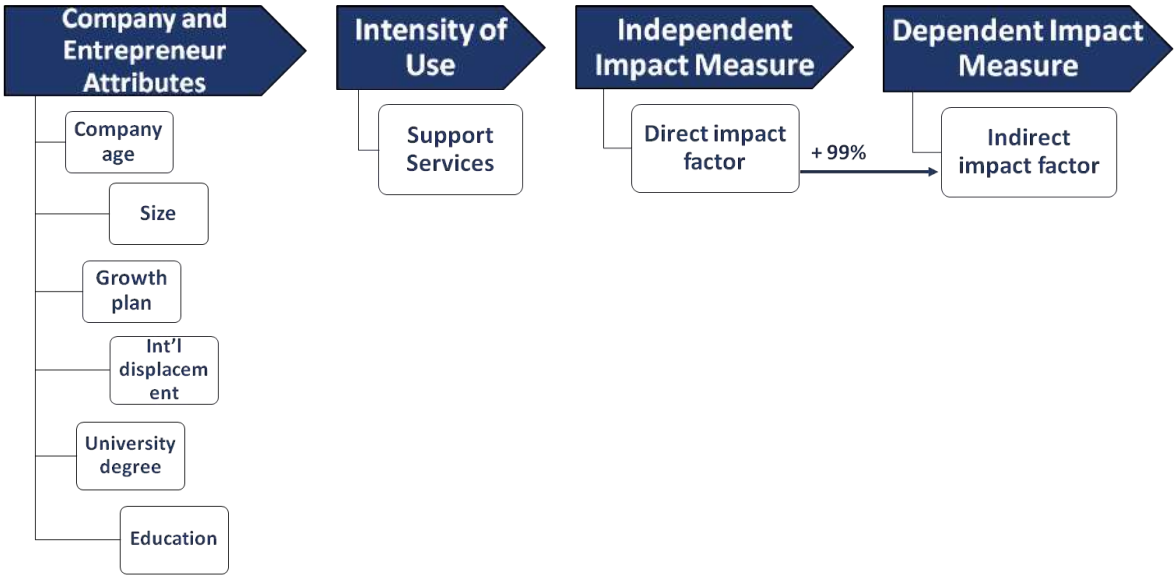

Figure 8.1 Model 2 – Impact on Indirect Impact

Model 3, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 46% 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% confidence level), indicating that companies reported higher impact on resources and capabilities are more likely to attribute the Ho Chi Minh City 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 Ho Chi Minh City 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 founded by entrepreneurs with a higher level of education, and that founded by entrepreneurs with more years of work experience are more likely to attribute the Ho Chi Minh City 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 founded entrepreneurs that have not studied or worked in a foreign country are more likely to attribute the Ho Chi Minh City programs with impact on their annual revenues.

Model 4, 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 4.

Model 5, 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 is significant in Model 5.

Table 8.3 Linear Regressions of the Ho Chi Minh City 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					
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 < .001

9. Barriers to Growth and Program Improvements

Barriers to Growth

The client companies of the venture support programs were also asked to identify the greatest barriers to their company's growth. Of particular note are the similarities in the barriers reported by companies operating in each of the three participating cities. Given this overlap in responses, we present the thematic analysis combined for all locations, the top three of which are presented below. Additional themes include the underlying costs of doing business, the competitive landscape, issues with infrastructure and technology, managerial capabilities, and difficulty engaging in partnerships.

Limited Access to and Availability of Capital

Similar to what was found during the interviews with the random sample of young companies operating in Da Nang, supported companies most frequently identified access to capital as one of their greatest barriers to growth. The lack of access to capital results in broad ranging limitations for the respondent companies, such as technical restraints ("Capital expenditures to ensure regulations on food safety and hygiene are met."), constraints on the marketing budget ("Currently our company [lacks funds] to market [our] products."), and resourcing limitations ("We do not have enough money to pay for experience[d] technical members.").

Insufficient Human Resources

A number of respondents reported personnel issues as one of their greatest barriers to growth. These issues range from difficulty sourcing appropriate staff ("It was very difficult to identify and recruit a capable CEO."), to issues with employee retention ("Difficulty in employing experienced technical members.").

Lack of Sales and Marketing Expertise

Companies participating in the venture support programs also cited issues with sourcing and selling to potential customers as one of their greatest barriers to growth. Underlying some of these responses is a lack of marketing knowledge ("How to bring products to clients?"), while others struggle with meeting customer needs ("Changing habits of users."). Additionally, the overall size of the domestic markets in Vietnam and Cambodia are a barrier to the growth of some companies.

Program Improvements

Although the venture support programs are, at present, having a meaningful impact on their clients, in the interest of programmatic improvement, respondents were asked an open-ended question regarding their future expectations for their respective program. For the purposes of this evaluation, the responses were summarized into seven recurring themes. We find that respondents suggested improvements to either the content of the programs and services offered or the program administration, inclusive of structure, staffing, etc.

Improve the Quality and Coverage of Mentoring, Training, and Workshops

This desired program improvement was expressed by respondents from three of the Ho Chi Minh City programs. This theme categorizes respondents who saw a need for a better and broader range of support services ("Better consultation services", "Consulting services on legal issues", "Build a consulting team to help start-ups").

Facilitate Financial Linkages

This desired program improvement was commonly expressed by respondents from seven of the Ho Chi Minh City programs. Respondents expressed a need for the programs to facilitate their access to funding or financing by other equity investors such as financial angels, other groups providing grants, loans or tax benefits, as well as project-related funding from private or governmental sources ("Access to funding", "Access to incentive fund", "Access to investors").

Improve Program Administration

Respondents of the Saigon Hi-Tech Park – Incubation Center program expressed the need for this program improvement. This theme categorizes respondents who indicated that they expected to work with dedicated program staff ("Efficient", "Responsible staff", etc.).

Create Networking Opportunities

Respondents from six of the Ho Chi Minh City programs commonly expressed a need for this program improvement. Respondents expressed a need for programs to create networking opportunities for their companies through networking events, workshops, conference, lectures, or other relationship-brokering activities ("Help companies to promote the image", "More activities for ex-members to participate").

Enhance Product Development and Marketing Strategies

Respondents from three of the Ho Chi Minh City programs expressed a need for this program improvement. Respondents indicated that they needed advice on product development ("Support to register product", "Support the entrepreneurs to commercialize their products", "Support to develop Hi-tech products"), and they wanted support to develop market strategies ("Trade promotion", "Improve the products and business marketing").

Improve the Business Facilities and Infrastructure

Respondents from the Ho Chi Minh City programs commonly expressed this program improvement. Respondents noted a need for the programs to expand working space for companies ("Expand and improve the working space", "Housing for entrepreneurs and their co-workers", "Current address very nice but a bit small"), and provide start-ups with better business facilities and infrastructure ("Find resources to improve its facilities", "Strengthening infrastructure", "High-quality internet and electricity").

Facilitate Business Linkages

Respondents from the Ho Chi Minh City programs commonly expressed this program improvement. Respondents expressed a need for the programs to facilitate their relationships with corporate partners, customers, and suppliers ("Facilitating access to customers", "Cooperation with IT companies", "Linkages with manufacturers").

Program-Specific Improvements

Table 9.1 provides a summary of the opportunities for improvement indicated by respondents, for each venture support program in Ho Chi Minh City.

Table 9.1 Opportunities for Improvement for Venture Support Programs in Ho Chi Minh City

Location	Venture Support Program	Themes											
		To lead, and create orientation for company development	To better coordinate and schedule training sessions	Selecting the right mentors/trainers	Improving the quality and coverage of mentoring, training, and workshops	Improving program administration	Improving business facilities and infrastructure	Providing and updating information timely	Facilitating business linkages	Facilitating financial linkages	Creating networking opportunities	Enhancing product development and marketing strategies	Organizing activities and evaluating participants in a fair and transparent manner
Ho Chi Minh City	Agri Business Incubator									✔		✔	
	Business Startup Support Centre						✔		✔	✔	✔		
	Business Incubation and Innovation Center – Nguyen Tat Thanh University								✔		✔		
	Ho Chi Minh City University of Technology – Technological Business Incubator				✔		✔		✔	✔		✔	
	Information Technology Park – Vietnam National University in HCMC				✔		✔		✔	✔	✔	✔	
	Nong Lam University – Center for Technology Business Incubation									✔	✔		
	Quang Trung Software Business Incubation Center				✔					✔	✔		
	Saigon Hi-Tech Park – Incubation Center					✔	✔		✔	✔	✔		

10. Recommendations

We recommend that the venture support programs in Ho Chi Minh City focus efforts on improving the quality of the support services offered in an effort to improve impact on companies' resources and capabilities measures, specifically the *Knowledge of customer needs* measure. Improved impact on companies' resources and capabilities measures in the short term will translate into improved impact on company performance measures in the longer term.

Ho Chi Minh City benefits from some fairly well-established venture support programs and several newer initiatives. The Saigon High Tech Park Incubator Center and the HCMC University of Technology Incubator have both been around long enough to have companies that have graduated. Newer programs include the Information Technology Park at HCMC National University Business Incubation and Innovation Centre – Nguyen Tat Thanh University. Unfortunately we can make few program-specific recommendations because the program-specific sample sizes are so small. They range from a low of three respondents for the Nong Lam University – Center for Technology Business Incubation program to a high of 11 respondents for the Information Technology Park program. There were a total of 55 respondents from the eight programs in HCMC.

Notwithstanding the foregoing, the Saigon High Tech Park Incubator Center (eight respondents) distinguishes itself from the other programs. Its client entrepreneurs are older, better educated (six of eight have Masters or PhD degrees), and have more work experience than the entrepreneurs served by other programs. Also, the client companies are more likely to operate in the ICT and manufacturing sectors and to have higher revenues. So the clients of the Saigon High Tech Park Incubator Center are likely more demanding than the clients of other programs. This may explain the relatively low satisfaction scores and the low scores for impact on company resources and capabilities (impact on business expertise, business network expansion, and knowledge of customer needs).

Overall, the entrepreneurs served by HCMC venture support programs are primarily 35 or younger, male, and well-educated, and experienced. The companies are new companies that have only recently engaged with the programs, with workforces that are highly-educated, have both domestic and international displacement experience, and are generally not comprised of family members. Further, these companies have plans for modest or high growth, and operate in technology sectors.

Improving impact on *Knowledge of customer needs* should be a focus of the venture support programs in Ho Chi Minh City. Of the three resources and capabilities measures, the lowest percentage of companies (81%) attributed positive impact on their *Knowledge of customer needs* measure, and of this percentage only 29% attributed 'A Lot' of impact. Further, the lowest average impact was attributed to the *Knowledge of customer needs* measure program participants (5.5 out of 10). These results demonstrate room for improvement of impact on companies' *Knowledge of customer needs*. Our results show that companies that participated in the support services with higher intensity attribute higher impact on resources and capabilities. Therefore, if more companies engage in the support services with higher intensity, this will likely improve impact on resources and capabilities.

Ninety-six percent of respondents indicated use of the support services offered by the venture support programs in Ho Chi Minh City, but only 12% of program participants used the services with 'high' intensity. In addition, the percentage of companies that indicated satisfaction with the support services

was high (98%), however, 46% of program participants were only 'somewhat satisfied'. Improving the level of satisfaction with support services is important, because doing so will likely increase the percentage of respondents that use these services with 'high' intensity. Specifically, if improvements are focused around the elements that comprise *Knowledge of customer needs* (e.g., understanding how to meet the needs of customers, and how to access domestic and international customers) we can infer that higher impact will be realized on this specific measure.

Much lower average impact was attributed on company performance measures than on resources and capabilities measures, and much lower percentages of respondents attributed positive impact on their performance than their resources and capabilities. However, our analysis of predictors of impact show that companies that have attributed higher impact on their resources and capabilities measures are more likely to attribute impact on their performance measures in the future. Therefore, improvements to impact on companies' resources and capabilities measures will help improve impact on companies' performance in the long term. The low performance impact results are expected at this stage, as the majority of companies (55%) first engaged with the support programs in 2015, or 2016, and it takes time before impact on longer-term performance measures is realized. Further, 60% of program participants reported that their company was founded in 2014 – 2016. Newer companies require more time to develop the capacity needed to transform impact on resources and capabilities into impact on performance. However, implementing improvements to bolster impact on resources and capabilities immediately will pave the way for higher impact on companies' performance in the future.

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.