Entrepreneur and Venture Support Programs in Phnom Penh

Appendix 4

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Brian Barge (Individual Consultant)
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www.theevidencenetwork.com

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 Phnom Penh 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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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, 100 out of 137 companies that had participated in venture support programs responded to a web-based survey, for an overall response rate of 73%. Table 2.1 provides further details on the response rate by program.

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%

3. Demographics of the Venture Support Program Participants in Phnom Penh

This section of the report provides information on the 100 entrepreneurs, and company respondents from those companies participating in the venture support programs operating in Phnom Penh.

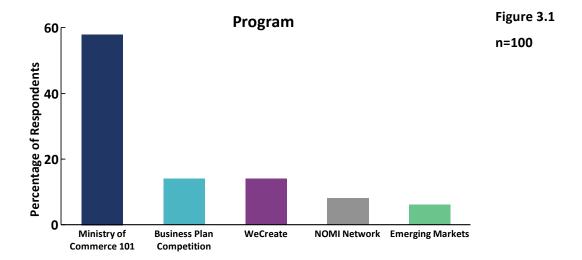
Firm Characteristics of the Venture Support Program Participants in Phnom Penh

The analysis of the demographics of companies participating in the venture support programs in Phnom Penh revealed that:

- 60% were founded in 2014 2016
- 75% first engaged with their program in 2015
- 31% are pre-revenue
- 35% received financial support
- 30% have more than ten full-time, paid employees
- 47% do not have any founders or employees that are family members
- 45% report that more than 65% of the founders or employees in their company have university degrees
- 42% report that more than 65% of the founders or employees in their company have domestic displacement experience
- 81% have plans for growth
- 19% operate in the retail or wholesale sector

We begin by providing information about the programs with which the companies engaged, followed by companies' year founded, year of first engagement, annual revenues, financial support received, 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.





Findings:

- 58% of companies participated in the Ministry of Commerce 101 program.
- 14% of companies participated in the National Business Plan Competition.
- 14% of companies engaged with WeCREATE.
- 8% of companies engaged with the NOMI Network.
- 6% of companies engaged with Emerging Markets.

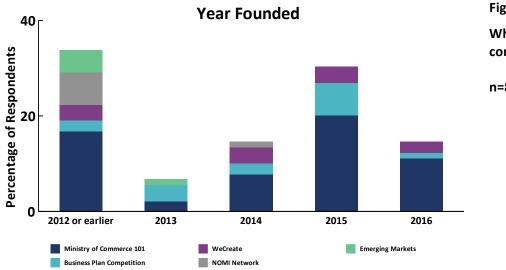
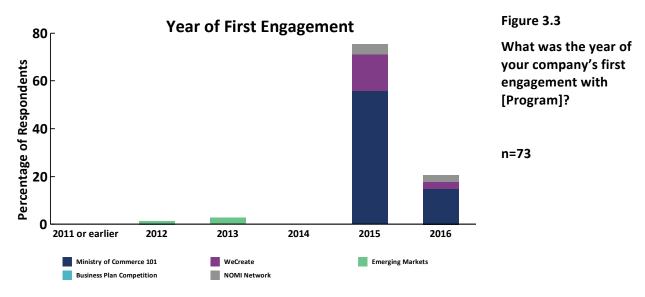


Figure 3.2 When was your company founded?

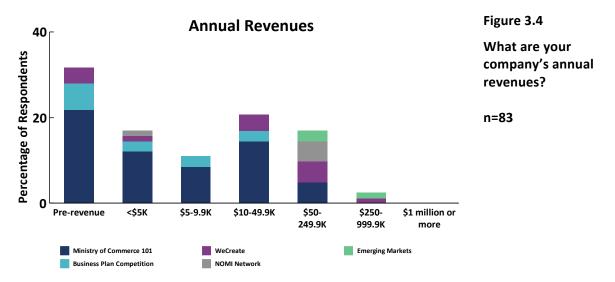
n=89

- 60% of all respondents reported that their company was founded in 2014 2016.
- 54% of the MOC 101 respondents reported that their company was founded in 2015.



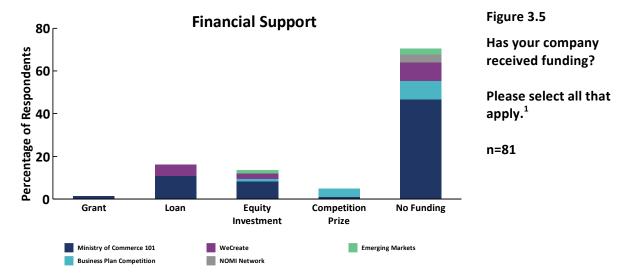
Finding:

• 75% of all respondents, and 79% of MOC 101 respondents reported that their company first engaged with their program in 2015.



- 32% of all respondents, and 35% of MOC 101 respondents reported that their company is prerevenue.
- 40% of all respondents, and 31% of MOC 101 respondents reported that their company generates \$10K or more in annual revenues.





Finding:

• 35% of responses for all locations, and 34% of responses for MOC 101 indicate receipt of one or more types of financial support.

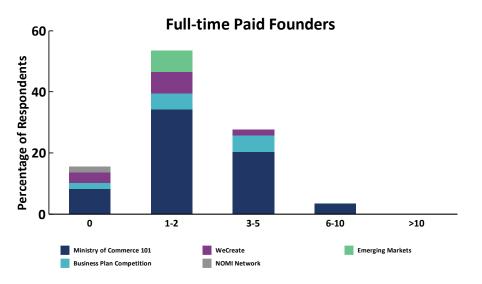


Figure 3.6

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

N=58

- 33% of all respondents, and 51% of MOC 101 respondents reported that their company has one or two full-time, paid founders.
- 28% of all respondents, and 31% of MOC 101 respondents reported that their company has three to five full-time, paid founders.

¹Respondents were asked to select all types of applicable financing, therefore the percentages add up to a value greater than 100%.



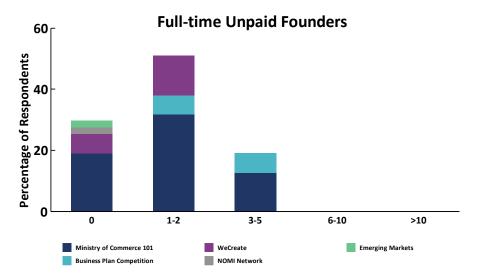


Figure 3.7

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

Finding:

• 54% of all respondents, and 50% of MOC 101 respondents reported that their company has one or two full-time, unpaid founders.

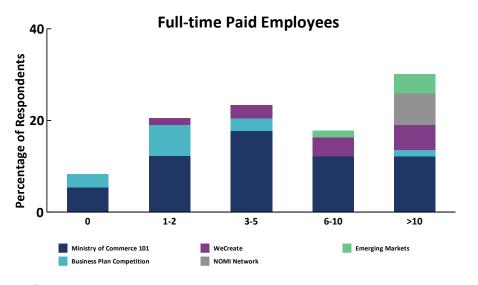


Figure 3.8

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

n=73

Finding:

• 30% of all respondents, and 20% of MOC 101 respondents reported that their company has more than ten full-time, paid employees.



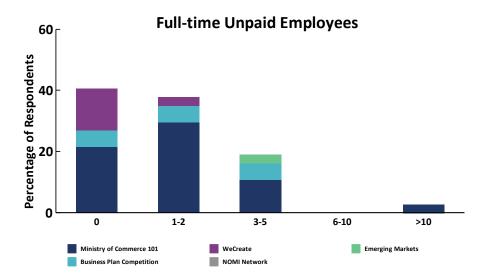


Figure 3.9

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

Finding:

• 38% of all respondents, and 46% of MOC 101 respondents reported that their company has one or two full-time, unpaid employees.

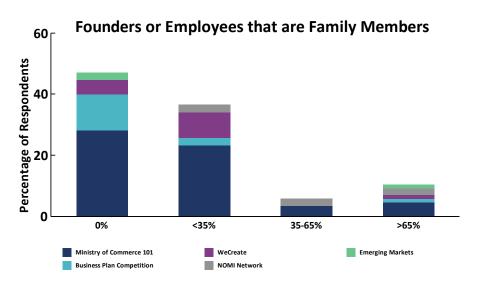


Figure 3.10

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

n=85

Finding:

• 47% of all respondents, and 47% of MOC 101 respondents reported that none of the founders or employees in their company are family members.



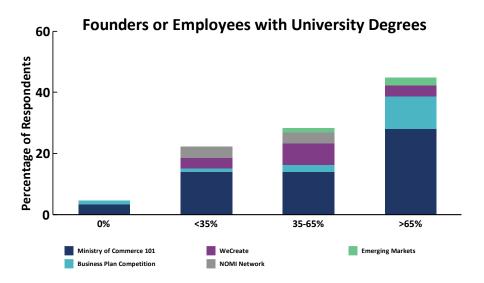


Figure 3.11

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

Finding:

• 45% of all respondents, and 47% of MOC 101 respondents reported that more than 65% of the founders or employees in their company have university degrees.

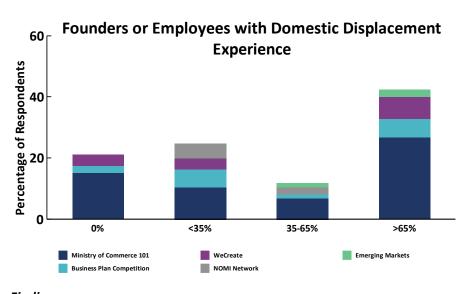


Figure 3.12

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

n=85

Finding:

• 42% of all respondents, and 45% of MOC 101 respondents reported that more than 65% of the founders or employees in their company have domestic displacement experience.



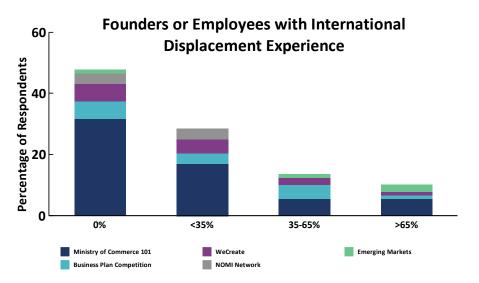


Figure 3.13 How many founders or employees in your company have studied

or worked outside Cambodia?

n=88

Finding:

48% of all respondents, and 53% of MOC 101 respondents reported that none of the founders or employees at their company have international displacement experience.

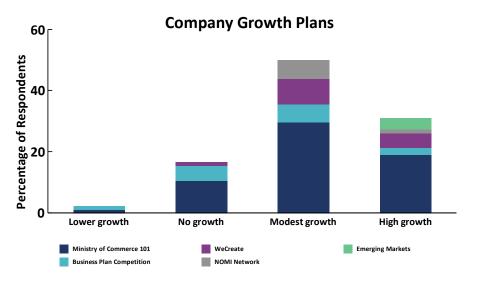
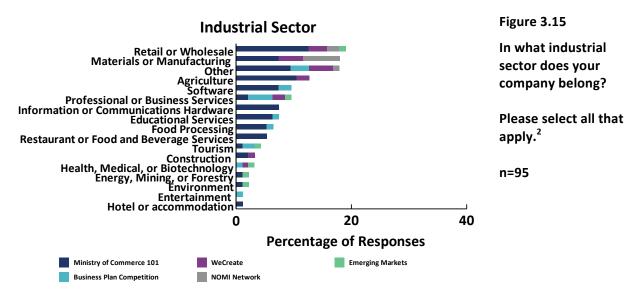


Figure 3.14 What are your company's revenue growth plans?

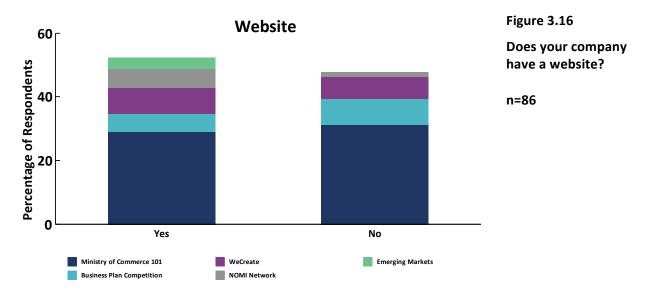
n=84

- 31% of all respondents, and 31% of MOC 101 respondents reported that their company has plans for high growth.
- 50% of all respondents, and 49% of MOC 101 respondents reported that their company has plans for modest growth.



Finding:

• 19% of responses for all locations, and 21% of responses for MOC 101 indicate companies belong in the retail or wholesale sector.

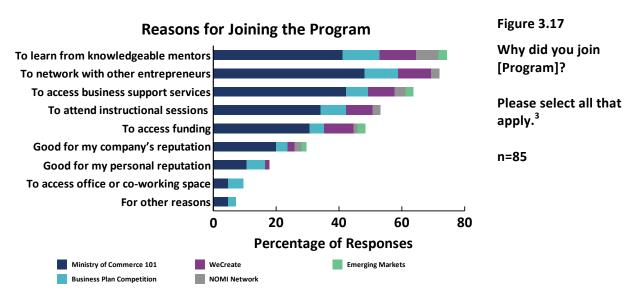


Finding:

• 52% of all respondents, and 48% of MOC 101 respondents reported that their company has a website.

²Respondents were asked to select all sectors that applied, therefore the percentages add up to a value greater than 100%.





Findings:

- 74% of responses for all locations indicate companies joined the program to learn from knowledgeable mentors.
- 77% of responses for MOC 101 indicate that companies joined the program to network with other entrepreneurs.

Entrepreneur Characteristics of the Venture Support Program Participants in Phnom Penh

The analysis of the demographics of the entrepreneurs of companies in Phnom Penh participating in the venture support programs revealed that:

- 74% of entrepreneurs are 26 40 years old
- 52% are male
- 55% have a college or university certificate; 29% have a Master's or PhD
- 64% have not studied or worked in a foreign country
- 28% had more than 10 years of work experience prior to founding their company

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 Phnom Penh. 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.

³ 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%.



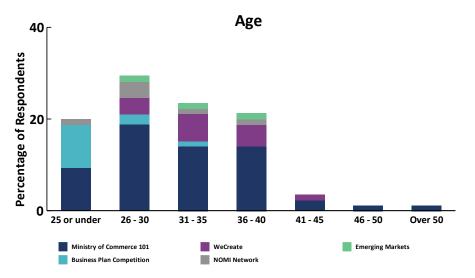


Figure 3.18
What is your age?

Findings:

- 74% of all respondents, and 77% of MOC 101 respondents reported that they are 26 40 years old.
- 20% of all respondents, and 15% of MOC 101 respondents reported that they are 25 years old or younger.

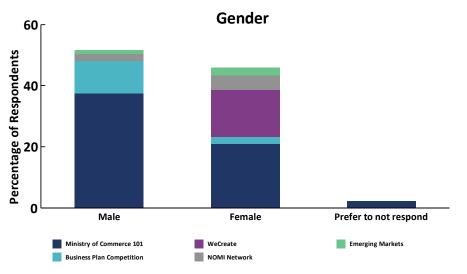
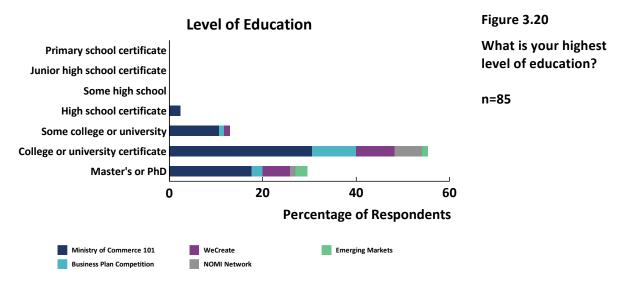


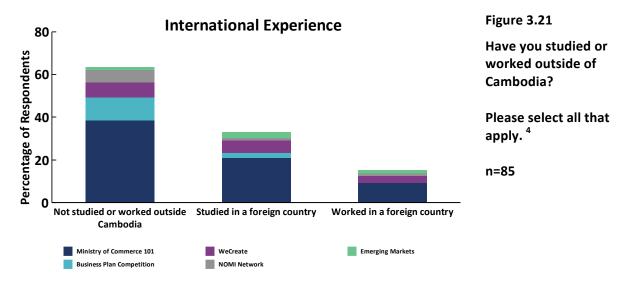
Figure 3.19
What is your gender?
n=85

- 52% of all respondents, and 62% of MOC 101 respondents reported that they are male.
- 46% of all respondents, and 35% of MOC 101 respondents reported that they are female.



Findings:

- 55% of all respondents, and 50% of MOC 101 respondents reported that they have a college or university certificate.
- 29% of all respondents, and 29% of MOC 101 respondents reported that they have a Master's or PhD.

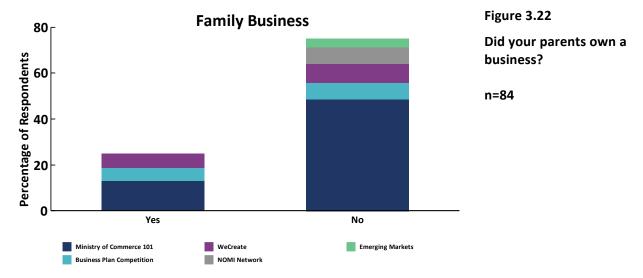


Finding:

• 64% of all respondents, and 63% of MOC 101 respondents reported that they have not studied or worked in a foreign country.

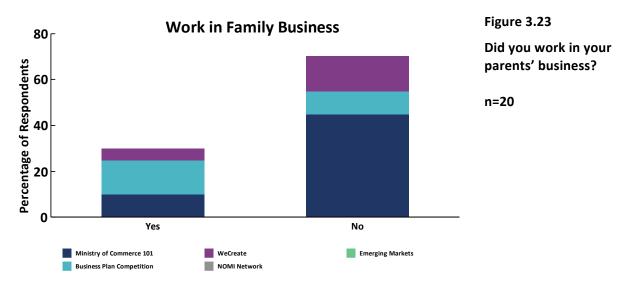
⁴Respondents were asked to select all applicable responses, therefore the percentages add up to a value greater than 100%.





Finding:

• 75% of all respondents, and 79% of MOC 101 respondents reported that their parents did not own a business.



Finding:

• 70% of all respondents, and 82% of MOC 101 respondents that reported their parents do own a business do not work in that business.



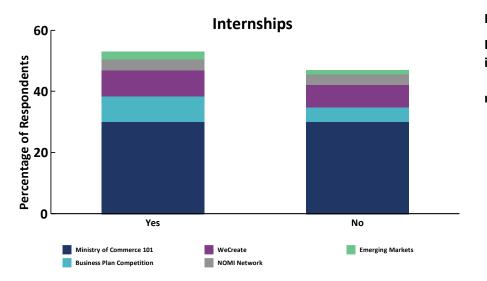


Figure 3.24

Did you have an internship as a student?

Finding:

53% of all respondents, and 50% of MOC 101 respondents reported that they had an internship as a student.

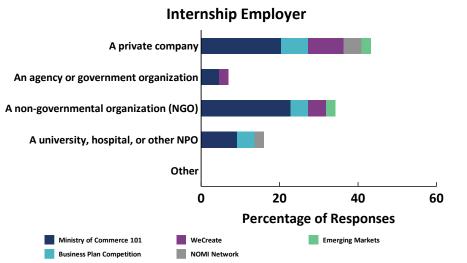


Figure 3.25
Please specify your internship employer.

n=44

- 43% of all respondents that reported they had an internship as a student specified a private company as their employer.
- 40% of MOC 101 respondents that reported they had an internship as a student specified a nongovernmental organization as their employer.



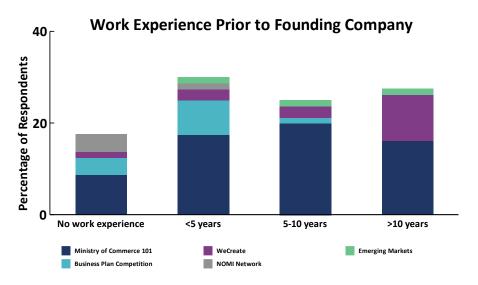
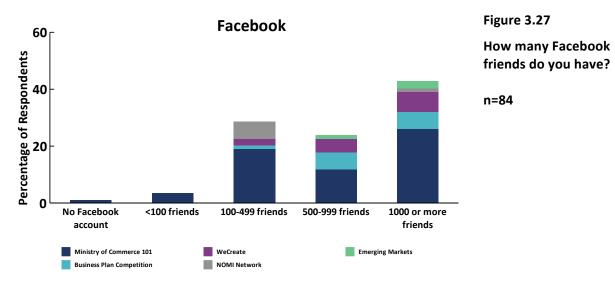


Figure 3.26
Before founding your company, how much work experience did you have?

Findings:

- 28% of all respondents, and 26% of MOC 101 respondents reported that they had more than ten years of work experience prior to founding their company.
- 18% of all respondents, and 14% of MOC 101 respondents reported that they had no work experience prior to founding their company.



- 43% of all respondents, and 42% of MOC 101 respondents reported that they have 1,000 or more Facebook friends.
- 53% of all respondents, and 50% of MOC 101 respondents reported that they have 100 999 Facebook friends.



4. Use of Services by Venture Support Program Participants in Phnom Penh

100% of companies in Phnom Penh used the program support services (42% high intensity of use, 42% moderate intensity of use, 16% 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		
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 programsLeadership campNetworking and eventsOnline 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		

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

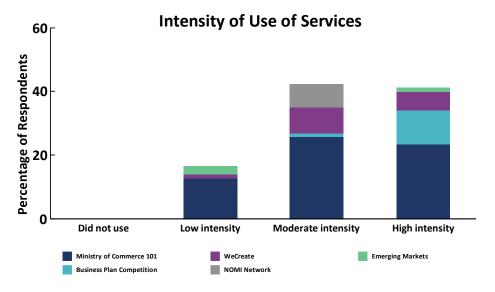


Figure 4.1
Please assess your company's intensity of use of the program support services.

- 100% of respondents reported that their company used the program support services
 - For all: 42% high intensity of use, 42% moderate intensity of use, 16% low intensity of use.
 - For MOC 101: 38% high intensity of use, 42% moderate intensity of use, 20% low intensity of use.



Satisfaction with Support Services

89% of companies in Phnom Penh were satisfied with the program support services (29% highly satisfied, 60% 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.

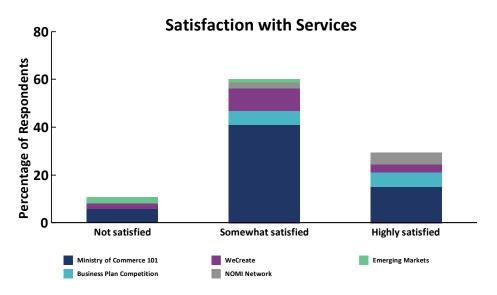


Figure 4.2

To what degree are you satisfied with the services provided?

n=85

- 89% of all respondents, and 91% of MOC 101 respondents reported satisfaction with the program support services
 - For all: 29% highly satisfied, 60% somewhat satisfied.
 - For MOC 101: 25% highly satisfied, 66% somewhat satisfied.



5. Impact on Resources and Capabilities of Venture Support Program Participants in Phnom Penh

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 Phnom Penh attributed the greatest average impact to the venture support programs on improvements to their companies' *Knowledge of customer needs* and *Business network expansion*, and lower impact on improvements to *Business expertise*.

The average impact of the venture support programs on the resources and capabilities of companies in Phnom Penh is greater for companies that have a greater number of founders and employees with domestic displacement experience, and companies that generate annual revenues of less than \$50K.

The average impact of the venture support programs on the resources and capabilities of companies in Phnom Penh is also greater for companies with entrepreneurs that have not studied or worked in a foreign country.

Further, the average impact on companies' resources and capabilities in Phnom Penh is greater for companies that used the support services with '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. Reading clockwise, we can see that the average impacts on resources and capabilities are hovering around the midpoint of the 'a little' impact range on improvements to all three measures, however the highest average impact is attributed to the *Knowledge of customer needs* measure, followed by the *Business network expansion* measure, with *Business expertise* receiving the lowest average impact of the three. This suggests that among the three company resources and capabilities impact measures, the venture support programs in Phnom Penh have the greatest average impact on improvements to companies' ability to learn about their customers, and expand their business networks, and lower impact on improvements to companies' ability to gain business expertise.

We observe that the average impacts across all programs are weighted by greater numbers of respondents from entrepreneurs and companies that used the Ministry of Commerce services. Thus, the lower overall average impact on improvements to companies' business expertise is largely explained by the lower performance of the Ministry of Commerce program on this measure.

⁵ 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.



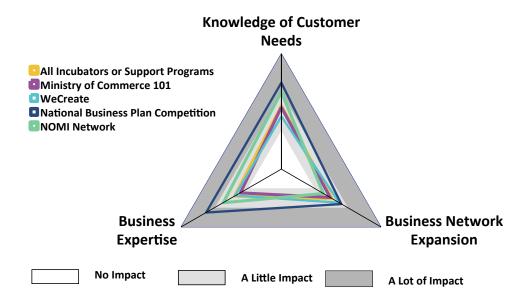


Figure 5.1 Average Impact of the Venture Support Programs on the Resources and Capabilities of Companies in Phnom Penh

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 Phnom Penh a greater percentage of companies attribute positive impact on their *Knowledge of customer needs* measure.

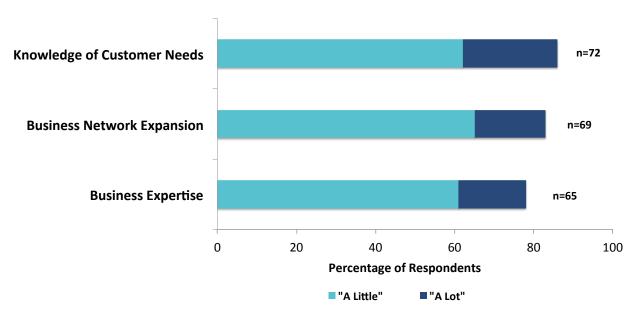


Figure 5.2 Percentage of Companies Attributing Positive Impact on their Resources and Capabilities



Respondents in Phnom Penh reported the following impacts on improvements to their companies' resources and capabilities to be 'A Lot', or 'A Little':

All Programs

- Knowledge of customer needs (86% positive impact) (24% 'A Lot', 62% 'A Little)
- Business network expansion (83% positive impact) (18% 'A Lot', 65% 'A Little)
- Business expertise (78% positive impact) (17% 'A Lot', 61% 'A Little)

MOC 101

- Knowledge of customer needs (85% positive impact)
 (23% 'A Lot', 62% 'A Little)
- Business network expansion (80% positive impact) (17% 'A Lot', 63% 'A Little)
- Business expertise (69% positive impact) (13% 'A Lot', 56% '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).

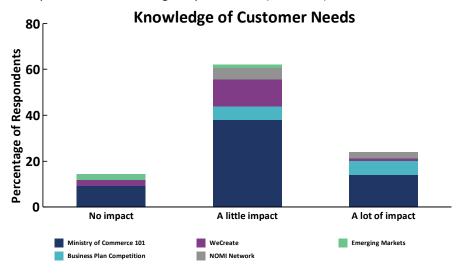


Figure 5.3

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

n=84; Average=5.5

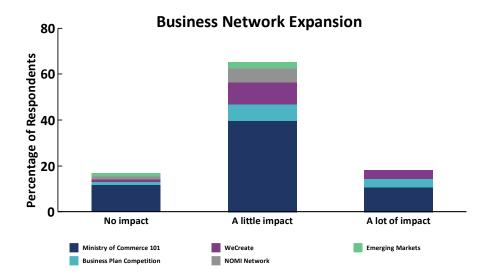


Figure 5.4
As a consequence of [Program], has your company's business network increased?

n=84; Average=5.1

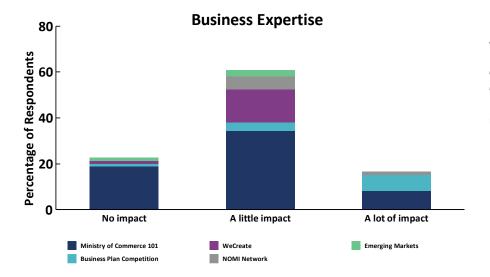


Figure 5.5

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

n=84; Average=4.7

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

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 with more founders or employees with domestic displacement experience (more than 65%), compared to companies that have fewer founders or employees with domestic displacement experience (65% or less) (significant at the 99% confidence level).
- The average impact on companies' resources and capabilities is greater for those that generate annual revenues of less than \$50K, compared to those that generate annual revenues of \$50K or



more (significant at the 95% confidence level).

The Venture Support Programs' Impact: Entrepreneur Attributes

From the information segmented by entrepreneur attributes, for Phnom Penh, we find that:

• 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 worked in a foreign country (significant at the 99% 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 Phnom Penh, we find that:

• The average impact on companies' resources and capabilities is greater for companies that used the support services with high intensity compared to companies that used the services with lower intensity (significant at the 99% confidence level).



6. Impact on Performance of Venture Support Program Participants in Phnom Penh

The venture support programs in Phnom Penh 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 were founded in 2012 or earlier, have two or more full-time founders, six or more full-time paid employees, generate \$50K or more in annual revenues, have growth plans, have entrepreneurs that are 25 or under, entrepreneurs that do not have a family business, and entrepreneurs that did not have any work experience prior to founding the company.

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 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. Reading clockwise, we can see that the average impacts on performance are at the high end of the no impact range on improvements to the *Change in annual revenues* measure, at the middle of the no impact range on improvements to the *Change in employment* measure, and at the low end of the no impact measure for the *Funding received* measure. This suggests that, though impact is low, 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.

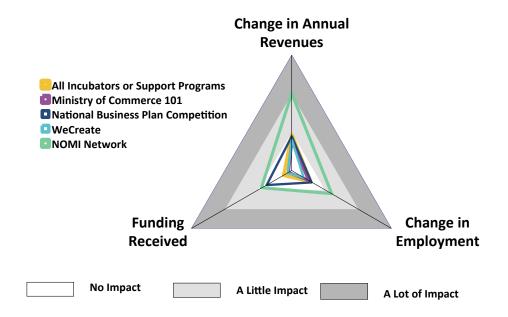


Figure 6.1 Average Impact of the Venture Support Programs on the Performance of Companies in Phnom Penh

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 6.2 that in Phnom Penh a greater percentage of companies attribute positive impact on their *Change in annual revenues* measure.

The Evidence Network

⁶ 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.

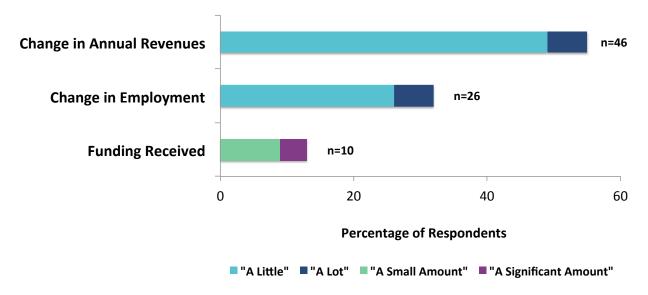


Figure 6.2 Percentage of Companies in Phnom Penh Attributing Positive Impact on their Performance

Respondents in Phnom Penh 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':

All Programs

- Change in annual revenues (55% positive impact) (6% 'A Lot', 49% 'A Little')
- Change in employment (32% positive impact) (6% 'A Lot', 26% 'A Little')
- Funding received (13% positive impact)
 (4% 'A significant amount', 9% 'A small amount')

MOC 101

- Change in annual revenues (51% positive impact)
 (2% 'A Lot', 49% 'A Little')
- Change in employment (31% positive impact) (2% 'A Lot', 29% 'A Little')
- Funding received (4% positive impact)
 (2% 'A significant amount', 2% '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).



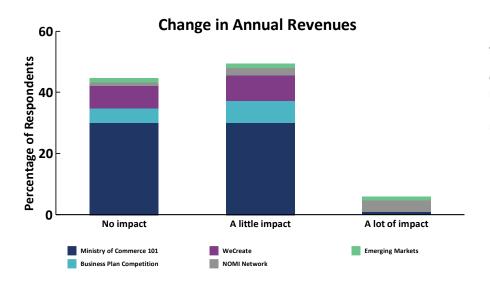


Figure 6.3
As a consequence of [Program], have your company's annual revenues increased?

n=83; Average=3.1

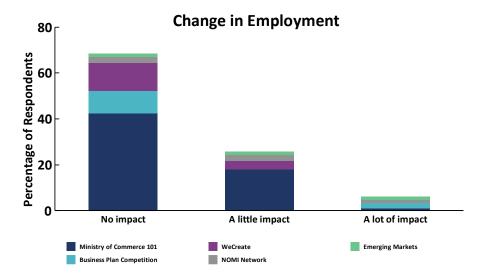


Figure 6.4

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

n=82; Average=1.9

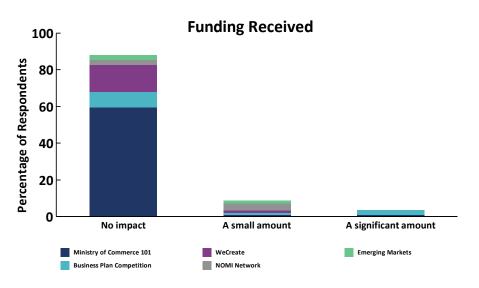


Figure 6.5

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

n=82; Average=0.8



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 Phnom Penh, we find that:

- The average impact on companies' performance is greater for companies that were founded in 2012 or earlier, compared to those that were founded in 2015 (significant at the 99% confidence level).
- The average impact on companies' performance is greater for companies with two or more full-time paid founders, compared to those that do not have any full-time paid founders (significant at least at the 95% confidence level).
- The average impact on companies' performance is greater for companies with two or more full-time, unpaid founders, compared to those that do not have any full-time, unpaid founders (significant at the 95% confidence level).
- The average impact on companies' performance is greater for companies with six or more full-time paid employees, compared to those that have one or two full-time paid employees (significant at least at the 95% confidence level).
- The average impact on companies' performance is greater for companies that generate \$50K or more in annual revenues, compared to those that generate less than \$50K, or are pre-revenue (significant at the 99% confidence level).
- The average impact on companies' performance is greater for companies that have plans for modest or high growth, compared to those that have no growth plan or plans to lower growth (significant at the 95% confidence level).

The Venture Support Programs' Impact: Entrepreneur Attributes

From the information segmented by entrepreneur attributes, for Phnom Penh, we find that:

- The average impact on companies' performance is greater for those with entrepreneurs that are 25 or younger, compared to those with entrepreneurs that are 36 or older (significant at the 95% confidence level).
- The average impact on companies' performance is greater for those 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 any amount of work experience (significant at the 99% confidence level).



7. Predictors of Company Growth

With regard to venture support program participants in Phnom Penh, older companies, those that have more employees with displacement experience, and those that were founded by older entrepreneurs are more likely to grow in terms of annual revenues.

Additionally, older companies, those that have an ambitious growth plan, and those that are founded by older entrepreneurs 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 regress company attributes, and entrepreneur attributes against *Annual revenues*, and *Number of founders and employees* respectively, based on the sample of Phnom Penh companies.

Model 1, which includes the company attributes, and entrepreneur attributes, explains 18% of the variance in the dependent variable, *Annual revenues*. In Model 1, *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. In addition, *Displacement experience of employees* is significantly associated with *Annual revenues* (significant at the 95% confidence level), indicating that companies that have more employees with domestic or international displacement experience are more likely to grow in terms of annual revenues. Of the entrepreneur attributes variables, *Entrepreneur age* is significantly associated with *Annual revenues* (significant at the 99% confidence level), indicating that companies that founded by older entrepreneurs are more likely to grow in terms of annual revenues.

Model 2, which includes the company attributes, and entrepreneur attributes, explains 15% of the variance in the dependent variable, *Number of founders and employees*. In Model 2, *Company Age*, and *Growth plan* are significantly associated with *Number of founders and employees* (significant at the 95% confidence level, and at the 90% confidence level respectively), indicating that older companies, and companies with an ambitious growth plan are more likely to grow in terms of number of founders and employees. Of the entrepreneur attributes variables, *Entrepreneur age* is significantly associated with *Number of founders and employees* (significant at the 95% confidence level), indicating that companies that founded by older entrepreneurs are more likely to grow in terms of number of founders and employees.



Table 7.1 Model Results of Supported Companies in Phnom Penh

Variable	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	+**	+*
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	80	79
Adjusted R ²	.18	.15
F (dof)	*** (14)	** (14)

dof = Degrees of freedom $\alpha = p < .1, * = p < .05, ** = p < .01, *** = p < .001$



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.⁷

Table 8.1 Regression Variables

Type of Measures	Measures	Regression Variables
Intensity of Use	• Mentoring	Use of support services ⁸
	 Networking 	
	• Instruction	
	Working space	
	 Access to funding 	
	 Business support services 	
	 Degree of participation in training sessions 	
Independent impact measures	Impact on:	Direct impact
impact incusures	Business expertise	(Cronbach's Alpha = .91)
	Business network expansion	
	Knowledge of customer needs	
Impact on	Impact on:	Impact on annual revenues
performance measures	Change in annual revenues	
	Impact on:	Impact on employment
	Change in employment	

⁷ Cronbach's alpha is a measure of internal consistency.

⁸ 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*. For training programs, the *Use of support service* variable is calculated based on the *degree of participation in training sessions*.



Table 8.1 (Continued)

	Table 8.1 (Continued)	
Type of Measures	Measures	Regression Variables
	Impact on:	Impact on funding received
	 Funding received 	
	Impact on:	Indirect impact factor
	Change in annual revenues	(Cronbach's Alpha = .93)
	Change in employment	
	Funding received	
Controls	• Year founded	Company age
	Annual revenues	Size
	Number of employees	
	Company growth plans	Growth plan
		Funding received
	• 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)



Table 8.1 (Continued)

Type of Measures	Measures	Regression Variables
Controls	• 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 8.2 presents a descriptive statistics and correlations table, based on sample of the Phnom Penh programs. 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

• Companies that use the support services with greater intensity are more likely to attribute impact on their resources and capabilities.

Indirect Impact

• Larger companies, and those 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 have an ambitious growth plan, to have more employees that are family members, to have a website, and to be founded by older entrepreneurs.
- Larger companies are more likely to have an ambitious growth plan, to have more employees
 that have studies or worked in a foreign country, and to attribute the Phnom Penh programs
 with greater impact on their company performance.
- Companies that have an ambitious growth plan are more likely to have a website, but to use support services with a lower intensity.
- Companies founded by older entrepreneurs are more likely to have received a greater amount of financial support.
- Companies founded by entrepreneurs that have studied or worked in a foreign country are more likely to have more employees with international displacement experience.



• Entrepreneurs with a higher level of education are more likely 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 least at the 95% confidence level.



												-							
	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		+ * *																+ * *	
Z	85	85	85	100	88	85	85	85	85	85	85		85	85		84			31
Mean	3.15	5.2x1	5.2x10 ¹⁰ 3.10	8.6 K	1.86	2.75	1.80	3.13	.52	2.67	.53		6.12	6.75					.17
Standard deviation	1.52	9.5x1	9.5x10 ¹⁰ .76	28.1 K	K 1.01	1.21	.96	.92	.50	1.29	.50	.44	.71	5.71	.48	549.0	.72	.89	.94
Minimum	1	0	1	0	1	1	1	1	0	1	0	0	4	0					1.02
Maximum	ъ	6.3x10 ¹¹ 4	011 4	200.	200.0 K 4	4	4	4	H	7	1	1	7	15		1500			2.59
* = 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.

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 Phnom Penh 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 Phnom Penh programs. Details on the five models may be found in Table 8.3.

Model 1, which includes control variables and intensity of use of support services, explains 43% 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 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 2, depicted in Figure 8.1, 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 2 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 venture support programs in Phnom Penh 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, 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 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 fewer employees with a university degree are more likely to attribute the Phnom Penh programs with impact on company performance.

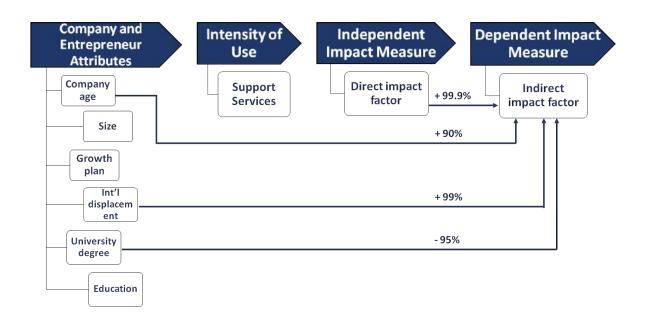


Figure 8.1 Model 2 – Impact on Indirect Impact

Model 3, which includes control variables, intensity of use of support services, and direct impact factor variable, explains 30% 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 report higher impact on their resources and capabilities are more likely to attribute the venture support programs in Phnom Penh 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 are founded by entrepreneurs with a higher level of education are more likely to attribute the Phnom Penh programs with impact on *Annual revenues*.

Model 4, 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 4 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 founded by entrepreneurs with a higher level of education are more likely to attribute the Phnom Penh programs with impact on their employment.

Model 5, 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 5 shows that *Direct impact factor* is significantly associated with impact on *Funding received* (significant at the 95% 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 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.



	Model 1	Model 2	Model 3	Model A	Model
	Direct impact	Indirect impact	Impact on annual	Impact on	Impact on funding
Variable	factor	factor	revenues	employment	received
C: Age		+ ^α	+ ^α	+*	
C: Size					+ * * *
C: Growth plan	*		+ a		
C: Funding received (\$)					
C: International displacement of employees		+ * *	+ a	+ *	+ 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	*		+ *	+ a	
E: Work experience (years)	+ α				
E: International experience				*	
E: Facebook friends					
Use of Services	+*				
Direct Impact Factor		+***	+***	+**	+*
Model Characteristics					
Total N	71	69	69	72	71
Adjusted R ²	.43	.26	.30	.18	.35
F (dof)	*** (13)	** (13)	** (13)	* (13)	*** (13)
dof = Degrees of freedom $\alpha = p < .1, * =$	$\alpha = p < .1, * = p < .05, ** = p < .01, *** = p < .001$	** = p < .001			

8. Predictors of Impact

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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 commonly expressed by respondents from four of the Phnom Penh programs. This theme categorizes respondents who saw a need for a better and broader range of support services ("One-to-one coaching", "Detailed training on how to do real business", "Practice on how to develop a business plan"). Additionally, some entrepreneurs mentioned that they wanted



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workshops and mentoring services focusing on start-ups topics ("Understand start-ups needs", "Clear course plan", "Mentoring focused on start-ups problems").

Facilitate Financial Linkages

Respondents from three of the Phnom Penh programs 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 capital", "Business loan", "Access to investors").

Improve Program Administration

Respondents from two of the Phnom Penh programs commonly expressed the need for this program improvement. This theme categorizes respondents who indicated that they expected to work with dedicated program staff ("Perform professionally", "Efficient", "Responsible staff", etc.), and they expected the programs to customize their working hours according to the start-up's interest ("Flexible working hours", "Convenient working time for start-ups").

Coordination and Scheduling of Training Sessions

Respondents from three of the Phnom Penh programs suggested improvements specific to the training sessions ("Limit the number of participants to improve quality", "Give a chance to the Khmer Speaker to attend", "Adapt the sessions or the speakers to the type/size of business involved in the program"), and to better schedule the training sessions ("Punctual", "Stick to original schedules", "Time of training is kind of tight (Weekend is not good)").

Selection of Trainers and Mentors

Respondents from four of the Phnom Penh programs commonly expressed a need for improved selection criteria. This theme categorizes respondents who indicated that they wanted qualified and responsible mentors and trainers ("Should be trainers/mentors who are serious and spend enough time and genuinely want to help", "Review mentors in more detail", "Do not have proper mentors"), and they expected the programs to select mentors or trainers with real business experience ("Mentors should be have experience with real business, not just a teacher from the university but never do business", "Invite successful entrepreneurs with real business practice as mentors/trainers", "Mentors should be specified by the topic").

Evaluate Participants Fairly

Respondents from two of the Phnom Penh programs expressed a need for this program improvement. Respondents mentioned that they saw a need for fairness when it comes to the evaluation of participating companies ("Avoid corruption", "Avoid nepotism", "Fair and transparent election process", "Unbiased manner").

Create Networking Opportunities

Respondents from all the Phnom Penh 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 ("Create activities to increase networking among members", "International trade fair", "International networking").





Program-Specific Improvements

Table 9.1 provides a summary of the opportunities for improvement indicated by respondents, for each venture support program in Phnom Penh.

Table 9.1 Opportunities for Improvement for Venture Support Programs in Phnom Penh

		Phnom Penh				Location
NOMI Network	WeCreate	Emerging Markets	National Business Plan Competition	MOC 101 Program		Venture Support Program
					To lead, and To better create coordinate orientation for and schedule company training development sessions	
	V		~	V	To better coordinate and schedule training sessions	
	~	~	~	V	Selecting the right mentors/tr ainers	
<	V		~	~	Selecting quality and the right coverage of mentors/tr mentoring, ainers training, and workshops	
	<			<	Improving program administration	
					Improving business facilities and infrastructure	Themes
					Providing and updating information timely	es
					Facilitating business linkages	
	<	<		<	Facilitating financial linkages	
<	<	<	<	<	Facilitating Creating financial networking linkages opportunities	
					Enhancing product development and smarketing strategies	
			<	<	Organizing activities and evaluating t participants in a fair and transparent manner	

10. Recommendations

We recommend that the venture support programs in Phnom Penh 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 *Business expertise* 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.

With the exception of the program delivered by Emerging Markets Consulting (EMC), which was active during 2012 and 2013, the programs offered in Phnom Penh are very new—most began operations in 2015. Also, with the exception of the Ministry of Commerce 101 program (MOC 101), for which we have 58 respondents (a 70% response rate), the sample sizes for programs are small, ranging from six respondents for the EMC program to 14 respondents for the National Business Plan Competitions and WeCreate programs, notwithstanding excellent response rates that range 70% to 86%. In our experience, high response rates are a good indicator of high affinity with the support program. Given these limitations in program longevity and sample sizes, our recommendations must be considered preliminary and interpreted with caution.

The entrepreneurs of companies in Phnom Penh participating in the venture support programs are primarily 26 – 40 years old, male, well-educated, and experienced. The companies in Phnom Penh participating in the venture support programs are new companies that have only recently engaged with the programs, have workforces that are generally less educated than the workforces of companies in Da Nang and Ho Chi Minh City, and have plans for modest or high growth.

Improving impact on *Business expertise* should be a focus of all the venture support programs in Phnom Penh. Of the three resources and capabilities measures, the lowest percentage of companies from all programs (78%), and from MOC 101 (69%) attributed positive impact on their *Business expertise* measure, and of these, only 17% from all programs, and 13% from MOC 101 attributed 'A Lot' of impact. Further, the lowest average impact was attributed to the *Business expertise* measure by all program participants (4.7 out of 10), and by MOC 101 participants (4.1 out of 10). These results clearly demonstrate room for improvement of impact on companies' *Business expertise*.

All respondents indicated use of the support services offered by all programs in Phnom Penh, but only 42% of all program participants, and 38% of MOC 101 participants used the services with 'high' intensity. Our results show that companies that participated in the support services with 'high' intensity attribute higher impact on resources and capabilities. Therefore, if more companies engage in the support services with 'high' intensity, this will likely improve impact on resources and capabilities.

In addition, the percentage of companies that indicated satisfaction with the support services was high (89% for all; 91% for MOC 101), however, 60% of all program participants, and 66% of MOC 101 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 *Business expertise* (e.g., assisting companies with business models, plans and practices, strategic planning, stakeholder relations, diversification into new product lines, or expansion of industrial or geographic markets), we expect 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. This is not surprising given that most programs had been running for less than a year at the time of the evaluation. 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 longer term.

The low performance impact results are expected at this stage, as the majority of companies (75% of all program participants, and 79% of MOC 101 participants) first engaged with the support programs in 2015, and it takes time before impact on longer-term performance measures is realized. Further, 60% of all program participants reported that their company was founded in 2014 – 2016, and 54% of MOC 101 participants reported that their company was founded in 2015. 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.

