Evaluation of MicroMentor

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Contents

1 Executive summary

This evaluation aims to assess the impact of mentorship through the MicroMentor platform, specifically for entrepreneurs from developing countries, to understand the experiences of entrepreneurs over time, and to validate MicroMentor's internal M&E data. Our team conducted a quantitative survey and a series of qualitative interviews by phone. The quantitative study provided results against key MicroMentor indicators, which are generalizable to the target population of entrepreneurs while the qualitative study explored the reasons for the findings in more depth.

The MicroMentor theory of change guided the evaluation. A "theory of change" is an articulation of what results are expected from an intervention, and the assumptions it relies on. The MicroMentor theory of change is depicted in the below graphic.

Our evaluation found impacts of mentoring on intermediate results, but not on high-level business outcomes. Entrepreneurs who received mentoring, particularly motivated users on the platform, were able to form meaningful connections with mentors. Mentored entrepreneurs valued the mentoring service highly, largely reporting that mentoring was of a high quality and aligned with their needs. Mentoring resulted in entrepreneurs taking specific actions to improve their businesses. We found that mentoring led to some business outcomes, especially increased external finance and self-employment. Though this evaluation did not find evidence of impact on revenue and job creation, short- and medium-term changes suggest that high level outcomes could be impacted down the road.

1.1 Methodology

Our research covered entrepreneurs from developing countries who signed up on the platform between January 2017 and May 2019. We surveyed 4,000 randomly sampled entrepreneurs, completing 400 detailed interviews and 494 shorter interviews. We also conducted 30 in-depth interviews with 15 entrepreneurs and 15 mentors. Quantitative and qualitative data were analysed using statistical techniques and thematic analysis respectively, and the findings from each research stream were combined to answer the research questions.

1.2 Who are the entrepreneurs?

1.2.1 Basic demographics

Respondents in our survey are primarily male (71% overall), and geographically spread across 52 countries. Women are particularly under-represented in Asia (15%). Respondents were concentrated in India (24%) and Nigeria (14%), followed by Columbia, Mexico, Ecuador and Peru.

Entrepreneurs seek mentorship support throughout the business lifecycle. About a quarter of businesses were at the idea stage, meaning they were not yet operating. Another 20% were operational, meaning that they have a prototype or have clients, but are not yet earning revenue by selling their product or service. Another 21% were earning revenue, and another quarter of businesses were profitable.

Enterprises tended to be small, and rely on the venture as their primary source of income. The numbers of employees ranged from 0 to 250, and the average number of employees was 7 across 2017-2019. Overall, 40% of entrepreneurs reported that the venture is their only source of income, with another 27% reporting that it is their primary but not only source of income**.**

1.2.2 Entrepreneurs in our sample fall into three types

We categorized entrepreneurs based on the level of effort that they put into finding a mentor. Type 1 entrepreneurs signed up to the platform, but never exchanged messages with a potential mentor. They typically contacted fewer potential mentors, displaying limited motivation to receive mentoring. Some Type 1 entrepreneurs did not contact mentors because they were still at the idea stage, without a concrete business to discuss. Others had a business that was larger and more mature than average, and time constraints prevented them from engaging with mentors. Type 2 entrepreneurs exchanged messages but did not receive mentoring, while Type 3 received mentoring. Type 2 and Type 3 entrepreneurs were more similar (except that Type 2 did not receive mentoring), so we use them as a control group later in the research.

Different types of entrepreneurs have various reasons for not making a connection with a mentor. Type 1 entrepreneurs struggled with knowing how to reach out to a mentor. Entrepreneurs at the idea stage often were unclear what they needed, and when they did find mentoring they required more intensive support over a longer period of time. Type 2 entrepreneurs more frequently did not get a response from potential mentors, or did not find the specific expertise they required.

1.3 Do entrepreneurs build a meaningful relationship with their mentor?

Overall, 27% (238) of respondents received mentoring. A larger proportion of women received mentoring (32%), and a greater proportion of respondents received mentoring in Africa (39%) and Latin America (31%) than in Asia (10%) and the Middle East and North Africa (MENA) (17%). Idea stage entrepreneurs less often received mentoring (22%) compared to later stages. Mentoring was received by 30% of operational ventures, 30% of revenue-generating ventures, and 28% of profitable ventures.

There is often a delay between signing up to the platform and commencing mentoring, and the mentoring relationship sometimes spanned multiple years. Of the 294 entrepreneurs who signed up to MicroMentor in 2017, 36 received mentoring only in that year. Another 24 received mentoring in 2017 and subsequent years, while 11 only received mentoring in 2018 or later. Overall, 19% of mentored users received mentoring over 2 years and another 4% received mentoring in all three years.

An intense early engagement was often followed by a long-term, less intense relationship. The average mentoring session was 0.9 hours long, and on average entrepreneurs received 9 mentoring sessions. This level of contact only lasted for 3.7 months, with entrepreneurs most frequently meeting their mentor weekly. Qualitative data suggests that, after a few months, many entrepreneurs continued to stay in contact with their mentor. The mentoring relationship often improved over time as entrepreneurs built confidence and rapport with their mentor. Both entrepreneurs and mentors felt that it took time to build rapport, before progressing to constructive engagements that help entrepreneurs meet their goals.

Mentoring relationships are generally taken offline, and mentors provide a range of tools and resources. About half of all mentoring relationships formed on the MicroMentor Platform were taken offline. This is lower than in previous surveys, likely due to the costs of communication in developing countries. Our qualitative and quantitative research uncovered a range of support provided. The most frequent subjects covered by mentoring was marketing, followed by pitching ideas and networking. Mentors were most commonly asked to respond to specific queries and point mentees to resources.

Some mentors and mentees had difficulty in understanding each other's needs. Mentors reported difficulty understanding the level of support that entrepreneurs needed. Some entrepreneurs had specific mentoring needs, or unrealistically high expectations. Early stage entrepreneurs required significant amounts of support. Mentees were particularly interested in a mentor's technical knowledge and experience, and emphasised the importance of local context and language for effective mentorship.

Some entrepreneurs had difficulty in matching with mentors. While some entrepreneurs had no trouble finding a match, others found the process difficult. There are more entrepreneurs than mentors on the site. Naturally, some mentors received more requests then they could manage, and some entrepreneurs did not manage to find a match.

1.4 Do entrepreneurs make better business decisions?

1.4.1 Perceived value of MicroMentor

Entrepreneurs valued mentoring at $465 on average, and qualitative interviews suggested some willingness to pay for the service. Entrepreneurs who received more mentoring, and those who reported taking action based on their mentor's advice, both valued MicroMentor higher. In qualitative interviews, entrepreneurs expressed their willingness to pay for mentorship services, provided that they are paying for a "premium product". Some would be willing to pay for an engaging mentor who was a good match, who could allocate sufficient time to the mentoring relationships.

1.4.2 Quality of mentoring

Entrepreneurs value mentoring which is aligned with their needs, provides a service not otherwise available, and that enables them to take specific actions. Overall, 82% of entrepreneurs reported that the mentoring was valuable and aligned with their business goals. Some mentoring involved general steering and support, such as structuring the entrepreneur's role. Others was tailored to the entrepreneurs needs, such as advice on food marketing or local patent laws. About half of respondents make use of other sources of business development, but very few access mentoring from elsewhere.

1.4.3 Actions taken and networks created

Entrepreneurs report taking actions based on the mentoring. Most entrepreneurs (74%) reported taking action based on their mentor's advice. Qualitative interviews provided examples, for example, setting up a website and social media strategy, better investing profits, restructuring hiring to reduce costs and take on full time employees, and linking up with local groups for networking. Of the 173 entrepreneurs who gave a specific example of an action taken, 32% related to making improvements in their marketing approach, 15% related to planning, 12% networking, 11% financial management, and 9% business development. Overall, 53% of entrepreneurs who answered the question believe that their mentor helped them build a network. Most (64%) of mentored entrepreneurs in our survey believed that MicroMentor contributed to the success of their business.

Stage of business and gender influence MicroMentor results. Idea stage businesses realise fewer intermediate outcomes**.** For example, 16% of idea stage businesses had not taken actions based on their mentoring advice, compared to 10% among businesses at other stages in their development. Women also face challenges in benefitting from mentorship. Overall, 24% of women disagree that mentorship has contributed to the success of their business, compared to 14% of men.

1.5 What impact can we observe on key business indicators?

1.5.1 Revenue

Revenue data was highly variable, which made statistical tests inconclusive. Even after removing outliers, the annual revenue in our sample for 2018 ranged from $94 to $130,000. This variation makes it challenging to find any statistical relationship between mentoring and revenue change. In the qualitative assessment, few respondents reported increased revenue resulting from mentorship. An increase in annual revenue depends on multiple factors, and impact from mentoring would likely be small compared to other economic factors.

1.5.2 Job creation

Our study provides no strong evidence that mentorship created jobs (not including self-employment). There is considerably less variation in jobs figures than revenue figures, making statistical analysis possible. We used a variety of statistical tests, controlling for various factors which might influence the relationship. Our results were inconclusive, finding no statistically significant difference between mentored and non-mentored entrepreneurs on job creation.

We might not expect an impact on job creation in this data, given that mentoring consisted of short to medium-term business advisory services and was not a high-intensity intervention. Any impact on business growth would be a long-term effect, potentially beyond the scope of this dataset. Our qualitative interviews also provided mixed results. Some mentored entrepreneurs reporting hiring additional staff due to their mentorship, while other mentors advised entrepreneurs not to hire staff, based on the specific business context.

1.5.3 External finance

There is evidence that mentored entrepreneurs are more likely to receive external finance for their venture. Entrepreneurs mentored in 2017 are approximately 7% more likely to receive external finance, mentorship in 2018 made receiving external finance 11% more likely, and entrepreneurs mentored in 2019 were 6% more likely to receive external finance that same year. Our qualitative data also showed that mentoring provided entrepreneurs with the motivation to apply for financing, and to improve the quality of their pitch.

1.5.4 Self-employment

Mentorship is associated with a 11% higher likelihood of being self-employed. This suggests that MicroMentor may support entrepreneurs to become self-employed.

1.6 Other topics

MicroMentor has a cost-benefit ratio of 1.36, implying that a cost of $100 yields $136 of benefit. This is based purely on the subjective valuation of MicroMentor provided by the respondents, as we were unable to quantify changes in revenue or jobs.

We found a slightly lower percent of mentored entrepreneurs compared to the previous Business Outcomes Survey (BOS). The BOS reported that 32% of entrepreneurs were mentored (in Africa and Asia only) while our study found 27% of entrepreneurs were mentored. This is likely to be partly due to a lower response bias in phone compared to email surveys, although response bias continued to be an issue in our survey.

Respondents are negatively impacted by Covid-19, and there is room for mentors to support them.

Fifty-five percent of respondents reported being negatively affected by Covid-19, especially through decreased sales. They felt that they needed support to cope with the challenge, especially on

marketing, but only 46 survey respondents reported having received mentorship during the pandemic.

1.7 Recommendations

- **Screening for mentors and entrepreneurs**. Entrepreneur mentoring needs vary, and could be more effectively assessed during registration. Similarly, mentors vary widely on what they can offer, and a screening questionnaire could provide more information on this.
- **Matching mechanism**. Based on improved screening, we suggest a tool to better match mentor skills with entrepreneur requirements. This could better address the specialised needs of different entrepreneurs.
- **Information gap**. Though MicroMentor have tested various approaches to helping entrepreneurs understand the platform, 23% of non-mentored entrepreneurs cited not knowing how to contact a mentor as their reason for not making a connection. This suggests that there is room for further improvement in this area, such as video tutorials or chat boxes.
- **Staying engaged on and off platform.** Respondents reported failing to notice MicroMentor notifications, causing their usage to drop off. Ways to address this issue would be valuable. For example, a mobile app that sent push notifications, or a timestamp on the platform showing the last time a user was active.
- **Expanding mentor network.** The low ratio of mentors to entrepreneurs acted as a barrier for some entrepreneurs to find mentorship. Since entrepreneurs look for mentors from similar contexts to their own, increasing mentors from developing countries could help address this bottleneck.
- **Additional resources.** Some entrepreneurs requested additional resources embedded on the site, or additional services in addition to mentoring. Suggestions included resources on how to apply for funding, links to sources of external finance, basic legal templates, and webinars on business topics. Existing mechanisms for peer mentorship, such as the Q&A forum, could be strengthened.
- **Focus less on idea stage entrepreneurs**. Our quantitative and qualitative analysis suggests that early idea stage entrepreneurs are often not yet ready for mentoring. Focusing on ‘mentor-ready’ entrepreneurs may lead to higher results.
- **Considering paid services.** We found some appetite among entrepreneurs to pay for a premium service, guaranteeing time from a mentor appropriate for their needs. Several mentors on the platform already work as professional mentors or support businesses in other contexts.

Suggestions on data collection and future studies are provided in the recommendation section below.

2 Introduction

This evaluation aims to assess the impact of mentorship through the MicroMentor platform, to understand the experiences of entrepreneurs over time, and to validate MicroMentor's internal M&E data. Our team conducted a quantitative survey and a series of qualitative interviews by phone. The quantitative study provided results against key MicroMentor indicators, which are generalizable to the target population of entrepreneurs while the qualitative study explored the reasons for the findings in more depth.

2.1 Methodology and sampling

2.1.1 Quantitative survey

We used a sample frame of 11,128 entrepreneurs from developing countries who signed up on the platform between January 2017 and May 2019.[1] We initially surveyed a random sample of 3,000 entrepreneurs, and later added an additional 1,000 randomly sampled entrepreneurs, as response rates and the proportion of mentored entrepreneurs were lower than predicted. After completing 400 detailed interviews with non-mentored respondents, a shorter version of the questionnaire was deployed in order to obtain a sufficient sample of mentored entrepreneurs for the comparison of business outcomes, while still keeping basic data on all respondents.

The quantitative questionnaire was developed with the MicroMentor team and was based upon the Business Outcome Survey (BOS) questionnaire, adding additional details on mentoring and business outcomes for 2017, 2018, and 2019**.** A team of 11 experienced enumerators were selected and participated in a day of training and piloting to test the questionnaire and data collection procedures. The protocol entailed three calling attempts at different times of day, with efforts to schedule interviews with entrepreneurs when possible.[2] Tracking sheets were used to assign enumerators to a set of entrepreneurs and track each contact case. Enumerators were assigned to entrepreneurs based on language and time-zone. An incentive was offered to respondents; by participating in the survey, they had the change to randomly receive a $300 USD cash prize.

A variety of statistical tests were used during the analysis. We conducted descriptive analysis of the quantitative data to understand mentoring and how it varies over time and to compare outcome averages with BOS estimates. Additionally, we conducted basic descriptive statistics and statistical tests to detect meaningful differences between the mentored and non-mentored group on jobs, revenue, and external finance. Additionally, difference in differences analysis was used to mimic an experimental design and test the effect of 'treatment' (mentoring) by comparing the difference between baseline and end-line business figures between mentored and non-mentored entrepreneurs. Finally, Ordinary Least Squares and Linear Probability Models were used to understand the relationship between mentoring and business outcomes.

2.1.2 Qualitative survey

We conducted 30 in-depth interviews with 15 entrepreneurs and 15 mentors from developing countries who signed up on the platform from January 2017 and May 2019. The surveys were conducted over the phone by our qualitative research expert and a Spanish-speaking research assistant. Notes from the interviews were entered into a predesigned framework to provide a

[1] Using the IMF definition of developing countries.

[2] Initially, emails were sent to sampled entrepreneurs in Africa due to very high calling costs to those countries. However, very few interviews were successfully scheduled through this method.

structured overview of summarized data. Analysis was then conducted in the framework by generating themes for each question and comparing them between respondents.

2.2 Data collection and representativeness

We completed a total of 894 quantitative interviews, giving a response rate of approximately 29%. Of the 4,000 entrepreneurs in our sample, 3,119 (78%) had a telephone number listed. When calculating the response rate, we only include those with a telephone number. From the complete sample of 4,000, our response rate was 22%. The fact that 22% of the sample could introduce a selection bias, if there are systematic differences between entrepreneurs who provide a phone number during sign-up and those that do not.

Response rates drop off slightly over time. Response rates are slightly higher for respondents who signed up to the platform recently, but there is not a dramatic difference. Respondents who signed up to the platform in 2019 who account for 25% percent of interviews but only 20% of our sample. Respondents from 2018 account for 42% of interviews and 42% of the sample, while response rates were lower for 2017, which accounts for 33% of interviews but 39% of the sample.

The first calling attempt is a good indicator of whether the respondent will pick up the phone, be willing to participate, and have time to speak. Three calling attempts were used for this survey. The first round of attempts yielded 67% of interviews, the second accounted for 21%, and the third for 12%. It is likely that additional attempts would only yield a few additional interviews. During the first round of calls, 192 interviews were scheduled, of which 170 interviews were subsequently completed. This suggests that scheduling interviews helps boost response rates considerably.

Response rates tended to be lower in Latin America and higher in Africa and Asia. Africa and Asia were over-represented in our data, with Africa accounting for 17% of the sample but 23% of interviews and Asia representing 22% of the sample but 27% of interviews (likely due to very high response rates in India in particular). Response rates in Latin America were lower, as these entrepreneurs made up 57% of the sample but 47% of our data. Additionally, although respondents in Nicaragua and Palestinian territories made up a considerable number of entrepreneurs in our sample (22 and 27 respectively), there were no respondents in our data from these two countries.

Women were slightly underrepresented in our data, accounting for 32% of the sample and 29% of our survey data. This is due to underrepresentation in Africa and the Middle East and North Africa (MENA), where women were 35% of sampled entrepreneurs but only 29% of respondents in Africa and 40% of sample but 25% of respondents in MENA. Latin America and Asia saw similar proportions of sampled and interviewed women.

Entrepreneurs who had engaged with the MicroMentor platform were more likely to be willing and available to participate in the survey. Across the sample, entrepreneurs had reached out to an average of 1.65 mentors. In our respondents, however, the average was 2.06, indicating that our respondents were more active on the platform than the whole sample.[3] Table 1 shows the different potential outcomes from our phone survey, split up by whether the respondent had reached out to at least one potential mentor. As can be seen, those who reached out to one or more mentors were slightly more likely to complete an interview.

[3] Note: before data collection, we created a variable for the number of mentors reached out to that using site data from MicroMentor. We also asked this question in the survey (how many mentors did you reach out to?). Interestingly, the averages are very similar; for the user data it was 2.06, for self-reported it was 2.1. For analysis, we used the self-reported value from our original dataset.

Table 1. Contact cases by whether user reached out to at least one potential mentor

Contact case	No reach out	One or more reach outs
Interview completed	26%	31%
Not reachable	61%	60%
Refuse	9%	8%
Wrong respondent	4%	2%
Total	100%	100%

The awareness of MicroMentor was low among some respondents. Respondents who reported that they had never heard of MicroMentor were typically marked as "Wrong respondent," since we could not be sure that they had created the account and were eligible for the survey. Respondents who vaguely remembered signing up to the platform but never used it were still interviewed. This probably explains why there is a slightly higher rate of 'wrong respondent' among our sample who had not reached out to mentors; they were less likely to remember MicroMentor at all. (See Table 1).

Differing response rates suggests an upward bias in the estimated percent of mentored entrepreneurs. This non-response bias could also lead to less accurate estimates of business outcomes across the sample, as less engaged entrepreneurs might be systematically different from entrepreneurs that reached out to potential mentors. We mitigated it to some extent by having three call-back attempts, but this should be considered when interpreting the results.

2.3 MicroMentor Theory of Change

MicroMentor have developed a 'theory of change', setting out the results that they expect to see through mentorship, and the assumptions that this relies on. The theory of change is:

> **IF** aspiring and existing entrepreneurs have identified a business challenge, are committed to its resolution, and have easy access to business mentoring resources,
>
> **AND** these individuals build a meaningful relationship with a relevant business mentor,
>
> **AND** they make better decisions about their business [improving short to medium-term business outcomes],
>
> **THEN** they are more likely to achieve success in developing their business resulting in increased business survival, increased revenue and job creation.

This evaluation reflects on the theory of change in several places. In section 4, we draw on our quantitative and qualitative data to discuss how entrepreneurs and mentors interact and build relationships, alongside the factors that support this process. In section 5, we focus on the short and medium term business outcomes for the entrepreneurs, such as their satisfaction with and subjective valuation of MicroMentor, and actions taken as a result of mentoring. In section 6, we review the final business outcomes. We focus on revenue, job creation and finance, but also consider business survival and self-employment.

3 Who are the entrepreneurs?

In this section, we consider the basic information about the entrepreneurs in our sample from developing (non-OECD) countries, and introduce a three-part typology to aid the analysis.

3.1 Basic demographics

The majority of MicroMentor entrepreneurs in developing countries are male. Our respondents were 29% female and 71% male. In our sample, women represent 29% of entrepreneurs in Africa, 15% in Asia, 38% in Latin America, and 25% in MENA.

Respondents were geographically spread, yet concentrated in a few countries. They came from 52 countries across Latin America (47%), Africa (23%), Asia (27%), Middle East / North Africa (3%) and Europe and Caribbean (both less than 1%). The countries with the most respondents were India (24% of all respondents) and Nigeria (14%), followed by Colombia (11%), Mexico (10%), Ecuador and Peru (5% each). Several remaining countries represented low numbers of respondents. Similarly, respondents in the qualitative interviews were also geographically spread, representing 16 different countries, largely within Africa (37%) and Latin America (53%).

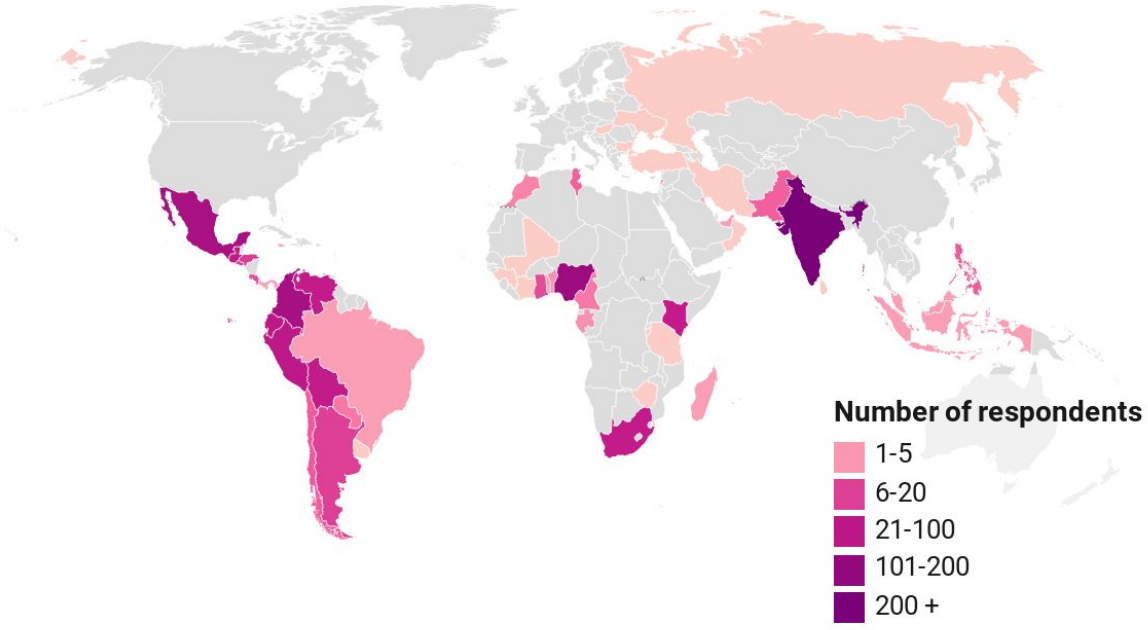

Figure 1. Number of respondents by country

Entrepreneurs seek mentorship support throughout the business lifecycle. Table 2 shows that about a quarter of businesses were at the idea stage, meaning they were not yet operating. Another 20% were operational, meaning that they have a prototype or have clients, but are not yet earning revenue by selling their product or service. Another 21% were earning revenue, and another quarter of businesses were profitable. The gender breakdown of business stage was largely even, except for profitable ventures, of which 27% were led by male entrepreneurs and only 20% by female entrepreneurs. Sixteen respondents indicated not having a venture, for example 5 respondents in different Latin American countries created a MicroMentor account for a university course but did not really have a venture idea. A small number of users had another type of project such as an NGO or non-profit.

Table 2. Venture stage

Stage	Count	Percent
Idea	232	26%
Operational	176	20%
Revenue	185	21%
Profitable	224	25%
Previously operational	36	4%
Previously earning revenue	20	2%
No venture or other	21	2%

Enterprises tended to be small. The numbers of employees ranged from 0 to 250, and the mean number of employees was 7 across 2017-2019. Of all operational businesses, micro-enterprises comprised about 87% of the sample, while small enterprises represented 10%, and medium enterprises approximately 2%.[4]

For most entrepreneurs, their venture is their primary source of income. Overall, 40% reported that the venture is their only source of income, and another 27% reporting that it is their primary but not only source of income**.** For other entrepreneurs, the income received from their business is not their primary source (18%) or they do not receive income from their venture at all (15%). Entrepreneurs in Asia more often reported that their venture was their only source of income (55%).

3.2 Entrepreneurs in our sample fall into three types

Entrepreneurs vary on their venture stage and level of engagement with the platform. Profiling entrepreneurs into functional categories helps with analysis, particularly given that respondents were not randomly assigned into the mentored group, but rather received mentorship due to a range of observable and unobservable characteristics. The typology in the following section will frame the results of the evaluation and can provide useful insights for MicroMentor's future research.

We categorized entrepreneurs based on the level of effort that they put into finding a mentor. Creating an account with MicroMentor is the first of several steps required to receive mentoring. An entrepreneur must first reach out to a mentor, and then exchange messages with them. In our sample, 300 entrepreneurs did not exchange messages with a potential mentor, and a further 150 exchanged messages but did not ultimately receive mentoring.[5] This allows a categorization of entrepreneurs: Type 1 (no exchange with a potential mentor), Type 2 (exchange but no mentoring), and Type 3 (mentored entrepreneurs).

Table 3. Types of entrepreneur

	Type 1	Type 2	Type 3

[4] This classification is from the European Commission definition of MSMEs by headcount, which considers micro-enterprises as having up to 10 employees, small enterprises having up to 50 employees, and medium enterprises having up to 250 employees.

[5] The number of entrepreneurs that did not exchange messages with a potential mentor can be broken down further into XX that reached out but did not exchange, and XX that did not reach out to any potential mentor. We used a functional definition based on whether there was an exchange because Type 1 entrepreneurs reached out to fewer mentors on a'

	No exchange/No mentor	Exchange/No mentor	Exchange & mentor
Exchange with potential Mentors	x	✔	✔
Mentoring received	x	x	✔

Contacting more mentors increases the chance of finding a mentor. Type 1 entrepreneurs contact fewer potential mentors than Type 2. Table 4 shows that the average number of potential mentors to whom users reached out is considerably higher among Type 2 compared to Type 1. It is likely that the three types are different in their ability or motivation to connect with a mentor. In other words, Type 1 entrepreneurs likely did not receive mentoring because they did not put in much effort, while the Type 2 group tried to find a mentor but was unsuccessful or did not reach out to enough potential mentors.

Table 4. Potential mentors contacted by Type

	Type 1 (Non-mentored)	**Type 2** (Non-mentored)	**Type 3** (Mentored)
% in our Sample	57%	17%	26%
Average number of mentors contacted	0.84	2.87	4.35

Mentored entrepreneurs typically have a stronger grasp of their venture idea and better articulate their needs in their profile. With a limited number of mentors on the platform compared to entrepreneurs, entrepreneurs needed to seek out mentors whose skills and experiences align with their goals. The qualitative interviews with mentors showed that they were more likely to support entrepreneurs who not only exhibit a level of seriousness in their venture, but also entrepreneurs whose needs matched their own skills. As mentors are inundated with messages from multiple entrepreneurs, they carefully filter the profiles of entrepreneurs to ensure they are engaging with entrepreneurs they can suitably support with their limited time.

Type 1 businesses break into two sub-groups: idea stage and mature.[6] Type 1 entrepreneurs are more often in the idea stage (29%) compared to other types (20% for Type 2 and 22% for type 3). This suggests that some of the type 1 entrepreneurs have an initial business idea, but are not serious enough about it to put the time into mentoring. Other type 1 entrepreneurs are generating revenue and profits. In this case, they tend to be more mature than the overall sample, with an average age of 5.3 years compared to 3.7 years for Types 2 and 3. Moreover, Type 1 operational ventures are larger, with an average of 10 employees compared to 4 for Type 2 and 5 for Type 3. This raises a question as to why these operational, more mature ventures are not connecting with mentors.

The reason for not making a connection with a mentor varies by the stage and type of business. Table 5 outlines the main reasons why non-mentored users did not make a connection with a mentor.

[6] For this analysis operational refers to all operational stages, including operational, revenue generating, profitable, previously operational, and previously earning revenue.

Table 5. Reasons for no mentoring by entrepreneur type

Reason for not making a connection (% of total sample)	Type 1		Type 2	
	Idea	Operational	Idea	Operational
Mentor did not have the right expertise (8%)	3%	8%	**17%**	**17%**
User did not get a response from potential mentor (28%)	18%	30%	**35%**	**37%**
User did not know how to contact a mentor (23%)	**31%**	**24%**	6%	13%
User was too busy with venture to make a connection (18%)	10%	**23%**	10%	**21%**
User was too busy with non-venture matters to make a connection (12%)	**21%**	7%	**24%**	8%

Type 2 entrepreneurs frequently did not get a response from potential mentors. They were also more likely to not match with a mentor because they were looking for a specific expertise that could not be found. Along the idea/operational split, operational businesses were more often busy with their venture, and idea stage businesses were more often busy with other matters.

Type 1 entrepreneurs at the idea stage struggle with knowing how to reach out with a mentor, and do not always know what support they need. Qualitative research also suggested that some entrepreneurs at the 'idea' stage did not know what they need from mentoring and might face different challenges due to being in the idea stage. Some mentors found that businesses at the idea stage require very intensive support over a long period of time, and were unwilling to volunteer so much time. In these cases, the seriousness or eagerness of the entrepreneur can be a key factor in determining whether the mentor is willing to engage.

Entrepreneur profiles vary by region. Africa and Latin America dominate the Type 2 and 3 groups, while Asian entrepreneurs constitute the majority in Type 1. There are a number of possible reasons for this, and it is not entirely clear what the underlying cause are. Language or other barriers may be preventing Asian entrepreneurs from exchanging messages and finding a mentor. Moreover, Asian entrepreneurs are much more likely to be in the 'idea' stage, and there is an overall trend of 'idea' stage entrepreneurs being less likely to be mentored. European and MENA respondents were mostly in Type 1.

Table 6. Regional sampling distribution (excluding the Caribbean and Europe)

Regions	Type 1	Type 2	Type 3
Africa	39%	22%	40%
Asia	84%	5%	10%
Latin America	48%	21%	31%
MENA	71%	13%	17%

4 Do entrepreneurs build a meaningful relationship with their mentor?

This section examines mentored entrepreneurs in more depth. It considers in particular the early stages of the MicroMentor theory of change; to what extent do entrepreneurs access relevant mentorship and build a meaningful relationship with their mentor?

4.1 Mentoring support

Overall, 27% (238) of respondents received mentoring. A larger proportion of women received mentoring (32%). Regionally, a greater percentage of respondents received mentoring in Africa (39%) and Latin America (31%), while a lower proportion of respondents were mentored in Asia (10%) and MENA (17%). Idea stage entrepreneurs less often received mentoring (22%) compared to later stages. Mentoring was received by 30% of operational ventures, 30% of revenue-generating ventures, and 28% of profitable ventures.

Table 7. Mentoring by sign up year. Each entrepreneur is listed once, under the year that they signed up.

	2017	2018	2019	Total
Not Mentored	74.8% 220	71.4% 265	74.7% 171	73.4% 656
Mentored	25.2% 74	28.6% 106	25.3% 58	26.6% 238
Total	100% 294	100% 371	100% 229	100% 894

There is often a delay between signing up to the platform and commencing mentoring. For example, among the 294 entrepreneurs who signed up to MicroMentor in 2017, only 36 were mentored just in 2017. Another 12 were mentored in 2017 and 2018, another 12 in 2017 and 2019, 5 just in 2018, another 5 just in 2019, and one in 2018 and 2019. Of the 371 entrepreneurs who signed up in 2018, 106 entrepreneurs were mentored in total, of whom 62 were mentored in just 2018, 31 in 2018 and 2019, and 11 only in 2019. This information is aggregated in table 2 below showing the totals of mentored entrepreneurs by year and cohort.

Table 8. Mentoring for 2017, 2018, and 2019 sign-up cohorts. Entrepreneurs who received multiple years of mentoring are shown multiple times in the relevant rows.

Number receiving mentoring in:	2017 cohort (N = 294)	2018 cohort (N = 371)	2019 cohort (N = 229)	Total mentored (N=238)
2017	60			60
2018	28	93		121
2019	18	42	56	116

The duration of the relationship sometimes spanned multiple years. Many entrepreneurs stayed in contact with their mentor over the long-term**.** Overall, 19% of mentored users received mentoring over 2 years and another 4% received mentoring in all three years. Mentors and entrepreneurs

explained that, though the intense mentoring relationship lasted a few months on average, they kept an open line of communication with their mentor/mentee over time. Consequently, nearly 30% of entrepreneurs mentored in 2017 reported that they are still in contact with the mentor. This figure remains at 30% for entrepreneurs mentored in 2018, and rises to 44% for entrepreneurs mentored in 2019. In qualitative interviews, entrepreneurs with long-term mentoring connections emphasised that the mentoring relationship improved over time as they built confidence and rapport with their mentor. One entrepreneur described increasing benefit from each additional engagement over time, suggesting that mentoring can have more significance as the relationship matures.

Many respondents connected with more than one mentor. Of the 60 individuals mentored in 2017, 37 (62%) connected with 2 or more mentors. Overall, 65% of mentored entrepreneurs established more than one mentoring connection in 2018 and 51% of those in 2019. The qualitative assessment also established that entrepreneurs often engage with multiple mentors, however the intensity of supplementary mentoring relationships is unclear.

4.2 Characteristics of mentorship

The average mentoring session was 0.9 hours long, and on average entrepreneurs received 9 mentoring sessions.[7] On average, mentoring relationships lasted 3.7 months and the frequency of mentoring during this period was most often reported to be once a week (32-41%) followed by 1-3 times per month (25-34%) and more than once a week (17-23%). This refers to the intensive receipt of mentoring, although as explained above informal contact between mentor and entrepreneur could last much longer. Entrepreneurs sometimes described making contact with their mentor following a schedule, while others sought mentoring sessions as issues arose. Qualitative interviews also showed that mentoring intensity was an important factor supporting entrepreneurs to improve their business. Both entrepreneurs and mentors felt that it took time to build rapport, before progressing to constructive engagements that help entrepreneurs meet their goals. These interactions often involved mentors providing support that required entrepreneurs to do further work individually, involving back and forth communication and updates between the mentor-entrepreneur pair. At this point, some mentors reported that relationships often ended, and entrepreneurs would fail to respond.

Mentors provide a range of tools and resources to mentees. According to entrepreneurs, mentoring primarily took the form of mentors responding to specific queries (reported by 58%), followed by pointing mentees to resources (37%), informal catchups (37%), strategic advisory services (33%), structured lessons (17%), and emotional support (13%). The most frequent subjects covered by mentoring were design marketing (53%), pitching ideas (35%), networking (22%), customer demand (21%), and pitching a vision (19%). The qualitative assessment also found that the nature of support provided by mentors included advisory support, sharing information or directing entrepreneurs to resources and relevant industry contacts across an array of subjects covering marketing, business development and planning, and financial management. Some mentors even did this as a profession, having their own websites dedicated to providing resources and support to small businesses.

[7] If an entrepreneur engaged with multiple mentors, the questionnaire asked about the most significant mentoring relationship.

About half of all mentoring relationships formed on the MicroMentor Platform were taken offline, with email as the most cited off platform mode of communication, followed by instant messaging, audio calls, and video calls. The relatively low number of mentoring connections taken offline is surprising compared to previous MicroMentor surveys and is likely related to the fact that this survey focused on developing countries. The qualitative assessment suggests that high costs and limited access to technologies in developing countries present a barrier. One respondent in Ghana mentioned, "In Ghana, the cost of internet is very high. You need money to buy good internet packages and it makes it difficult to engage." Other respondents used email for convenience or avoiding difficulty scheduling calls. However, respondents who used audio or video calling widely agreed that it was more effective for communication.

4.3 Determinants of a successful match

Mentors had difficulty matching with and understanding entrepreneurs' mentoring needs. Qualitative analysis showed that this was generally the entrepreneurs' first experience with mentorship. Mentors reported difficulty in understanding the level of support that entrepreneurs need, and the feasibility of providing it. Some entrepreneurs had very specific mentoring needs, or unrealistically high expectations of what could be accomplished through mentoring. This was particularly true of early stage entrepreneurs, for whom a lot of support was needed to turn their ideas into a viable business strategy. Mentors noted that some entrepreneurs seemed to drop off when mentoring showed them the challenges of getting their idea operational. While entrepreneurs sought mentorship in varying areas of their venture, the qualitative assessment suggests that entrepreneurs largely sought mentorship for venture-wide challenges, rather than singular issues. Support to address business wide challenges required more time and dedication from mentors. Unsurprisingly, some mentors expressed the desire to engage with entrepreneur with an understanding of basic business principles.

Entrepreneurs experienced challenges in matching with a mentor. While some entrepreneurs had no trouble finding a match, others found the process difficult. Respondents noted the time it took to find a match (a few months) and the number of mentors they contacted, with one respondent saying, "I reached out to several mentors, more than 10 – one replied." Mismatches in schedules also arose due to a lack of availability from the mentor, or differing time zones. Unfortunately, our qualitative interviews found a couple of cases where mentors violated MicroMentor's terms of use and asked for money or personal information from entrepreneurs. One entrepreneur matched with some mentors who were not willing to work with her because they were not in Africa. Some respondents maximized their chances of finding a mentor by reaching out to several mentors and maintaining a complete profile. Ultimately, matching with a mentor can be daunting. In the words of one entrepreneur, "The challenge that was overcome was the fear of asking for help from someone unknown."

A mentor's technical knowledge and experience were important to mentees. Entrepreneurs skillset and expertise when describing the mentors they reached out to, and when discussing their satisfaction with mentoring. One respondent didn't find a mentor in the tourism industry, and her mentor was instead an expert in social media. Another respondent described that his mentor "did not have enough experience, only 3 years." Most entrepreneurs were satisfied with the competence of mentors on the platform, like the entrepreneur who reported, "The mentors contacted proved to be very experienced, as well as very proficient in the subject matter I was looking for in MicroMentor ... the times we exchange messages, you could notice their experience and knowledge of the subject."

Culture and language were also important factors. Both entrepreneurs and mentors emphasized the importance of local context for mentorship. One entrepreneur described changing mentors and noted, “the Mexican mentor understood much more the context in which my country lives because of the closeness. The mentor from Spain often gave me solutions that did not fit the reality of El Salvador, such as the acquisition of computer equipment at low costs as in Spain.” Matching languages was also generally a precondition for mentoring, though a few mentors and entrepreneurs experienced a language barrier with their connections.

There are more active entrepreneurs than active mentors on MicroMentor, which can cause mentors to be inundated with messages. From the mentor’s perspective, time constraints and an overall limited number of mentors on the platform meant that it is not possible for every entrepreneur to receive mentoring. This introduced a selection process in which mentors filtered higher potential candidates or those more aligned with their expertise to receive mentoring.

5 Do entrepreneurs make better business decisions?

In this section, we consider the intermediate outcomes in the MicroMentor theory of change. The most important intermediate outcome is better decision making – do entrepreneurs make improved decisions based on the information they receive? As a proxy for this stage, we also consider self-reported value of MicroMentor and the perceived success of the mentoring.

5.1 Perceived value of MicroMentor

Entrepreneurs valued mentoring at $465 (N=140) on average. There was a significant positive relationship between the intensity of mentoring and the perceived value (P=0.005). Interestingly, the average value of mentoring was considerably higher among entrepreneurs who reported taking action based on their mentor's advice ($530 vs. $465).

Mentored entrepreneurs may value mentoring more highly when they put more time into their mentorship. Using the number of potential mentors contacted as a proxy for engagement, mentoring was valued more highly among mentored entrepreneurs that reached out to 3 or more mentors ($561) than those who reached out to 2 or fewer mentors ($312). Moreover, businesses that were operational but not yet earning revenue valued mentoring higher at $523, while idea and revenue-generating or profitable ventures valued the service near the sample average.

Reported satisfaction with mentoring and a desire to re-engage with MicroMentor are further indications that entrepreneurs value the services received. The majority of respondents reported satisfaction with the quality of mentoring (79% agree or strongly agree) and reported that mentoring contributed to the success of their business (64%). In qualitative interviews, entrepreneurs valued the level of engagement, push, and support from mentors, as well as their diversity of expertise, depth of technical knowledge, and professionalism.

Most entrepreneurs from the qualitative interviews expressed their willingness to pay for mentorship services on the platform, provided that they are paying for "a premium product." Specifically, entrepreneurs would be particularly willing to pay if they knew they would have an engaging mentor who is a good match and who could allocate sufficient time to the mentoring relationship. Some of these entrepreneurs expressed reservations regarding their limited financial resources, and one respondent suggested that rates be appropriate for each country.

5.2 Quality of mentoring

Mentoring is aligned with the needs of entrepreneurs. Mentoring sometimes involved general steering and support. In one case, a mentor helped an entrepreneur define and structure her own role: "I was able to clearly define what my role was in the start-up. Since I was the founder, I was trying to do everything at one. [Mentoring] broke down the tasks to be done." Some mentoring was tailored to the entrepreneur's needs, for example, advice on food marketing or expertise on local patent laws. One mentor even visited an entrepreneur's factory to help find ways to motivate employees. There were also cases where mentoring supported critical decisions for the entrepreneur. One respondent reset prices for her pastry business to better align with market factors. Another entrepreneur reported that his mentor's guidance led him to register and formalize his business, and yet another entrepreneur decided not to take on new employees because her mentor's support with finances showed that her business could not afford new hires. Consequently, 82% of entrepreneurs reported that the mentoring was valuable and aligned with their business goals.

MicroMentor is providing a service that entrepreneurs are not accessing elsewhere. Only 4% of entrepreneurs who did not make a connection with mentors cite the reason of finding another source of mentoring elsewhere. About half of respondents made use of other sources of business development. This comprised online courses (30% of our sample), incubators (10%), and advice from an investor (6%). All other sources (consulting and others) were reported by 5% or fewer. Whether entrepreneurs are not using alternative sources of mentoring because they are not able to access it, or these services are not readily available is unclear.

MicroMentor may be used by enterprises that otherwise struggle to get expert business development services, as mentored entrepreneurs are smaller in size than their non-mentored counterparts and they seek out few alternative sources of business development. For the 18 entrepreneurs who accessed consulting services for business development, the average cost was $1024, which is likely to be too expensive for most small entrepreneurs. Entrepreneurs in our qualitative interviews expressed gratitude to mentors for their willingness to provide free mentorship, indicating the importance of support structures for small businesses.

Entrepreneurs and mentors can reduce responsiveness due to time constraints. In the qualitative interviews, entrepreneurs and mentors were asked how the mentorship relationship ended and why. The primary reason why relationships ended was entrepreneurs not responding to their mentors, in many instances due to a lack of time. As mentors seek to engage with motivated entrepreneurs, they are unlikely to follow-up when entrepreneurs fail to respond. Mentorship relationships also ended as mentors failed to respond to entrepreneurs due to time constraints.

5.3 Actions taken and networks created

There is high potential for MicroMentor to influence business outcomes. Most entrepreneurs (74%) reported taking action based on their mentor's advice. Qualitative interviews provided examples of the results, for example, setting up a website and social media strategy, better investing profits, restructuring hiring to reduce costs and take on full time employees, and linking up with local groups for networking. These examples support the hypothesis that there is a mechanism for mentors to improve business outcomes. The median enterprise in our sample had been operating only 3 years and businesses that reached out to mentors tend to be more newly operational, suggesting that mentoring has the chance to support businesses during a strategic period when risk of closure is relatively high.

Entrepreneurs report taking specific actions due to mentoring. Of the 173 entrepreneurs who gave a specific example of an action taken, 32% related to making improvements in their marketing approach, 15% related to planning, 12% networking, 11% financial management, and 9% business development. Some common examples included setting prices, guidance on advertising and marketing, steering mentees toward advantageous partnerships or opportunities for funding, or helping the entrepreneur build a network by providing contacts.

Examples of actions taken by entrepreneurs

The following list give example actions taken by entrepreneurs, based on the qualitative interviews:

- One entrepreneur works in the agrobusiness sector in Cameroon. His mentor helped him submit three funding proposals to find grant opportunities. At least one funding applications so far has been successful. His mentor also introduced him to organizations he knows in the same sector. In our interview, the entrepreneur believed that mentoring had increased his business' income. He discussed how mentoring had encouraged his work, provided a more

positive outlook, as well as providing hard skills such as Powerpoint, writing business plans, and grant proposals.

- One pastry chef in Guatemala changed her prices based on the mentor's support. She found that the new pricing increased resources she could invest back into her business, especially in marketing the product.
- One entrepreneur working in Jamaica was supported by their mentor to rebrand and target environmentally conscious customers
- One entrepreneur in El Salvador changed their advertising, using social networks and free software. They believe that this ultimately led to increased income.
- One entrepreneur running a mental health service in Ghana was put in touch with existing services to learn how they operate, and what resources she needs for her own business.

Entrepreneurs report creating new networks with mentorship support. Overall, 53% of entrepreneurs who answered the question believe that their mentor helped them build a network. This included both putting entrepreneurs in touch with new clients and sources of support, such as the entrepreneur in Bolivia who gained new contacts in the United States. It also included support to better use their existing network, such as an entrepreneur in Nigeria who was advised to stay in better contact with their old customers, who could then become ambassadors for the business.

As a result, most entrepreneurs believe that MicroMentor contributes to the success of their business. Overall, 64% of mentored entrepreneurs in our survey believed that MicroMentor contributed to the success of their business. 19% disagreed, while a further 17% were neutral.

5.4 Business stage and gender influence MicroMentor value

Idea stage businesses realise fewer intermediate outcomes. On all the above metrics, businesses at the idea stage tended to give fewer positive answers. For example, 16% of idea stage businesses had not taken actions based on their mentoring advice, compared to 10% among businesses at other stages in their development. Similarly, 37% of idea stage businesses disagreed with the statement that the mentor had supported their network, compared with 27% in other businesses. Perhaps as a result, idea stage businesses were less likely to agree that mentoring had helped their business succeed, with 41% agreeing, compared to 70% across the rest of the sample.

Women face challenges in benefitting from mentorship. Disaggregating the above outcomes by gender also shows that women face particular challenges in benefitting from mentorship. Overall, 24% of women disagree that mentorship has contributed to the success of their business, compared to 14% of men. Similarly, 35% of women did not increase their network (compared to 26% of men). While satisfaction and the number of actions taken is roughly similar between men and women, this does suggest there may be particular challenges faced by women in receiving mentorship.

6 What impact can we observe on key business indicators?

In this section, we assess the impact of the MicroMentor programme on three key business indicators: revenue, jobs, and investment. We also analyse two supplementary indicators: business survival and self-employment. We use the typology of entrepreneurs laid out in section 3 throughout the analysis.

6.1 Revenue

The revenue data was highly variable.[8] For example, annual revenue data for 2018 had a mean of $28,000 USD, but the minimum value was $94, and the maximum value was $130,000 after removing outliers. The sample sizes were relatively small because only half the businesses in our sample generated any revenue, and few of them generated revenue for all three years of interest.

The high variation and low sample sizes for the revenue data makes statistical tests inconclusive. Statistical models did not find a relationship between mentoring and revenue earned by businesses. However, the number of years since a business became operational did have a positive significant relationship with revenue. Few entrepreneurs interviewed in the qualitative assessment reported increased revenue resulting from mentorship. It is important to remember that an increase in annual revenue depends on multiple factors, and impact from mentoring would likely be small compared to other economic factors. Moreover, business improvements may take time to influence revenues. When asked about the change in revenue from year to year, most businesses (60-65%) reported an increase in their revenue. The following table summarizes average (mean) revenue by type of entrepreneur.

Table 9. Revenue outcomes by type

Revenue (USD)	Type 1 (no exchange with mentors)	Type 2 (exchanged messages, no mentoring)	Type 3 (mentored)	Total Average
2017 Annual revenue	27,000 (N=19)	71,000 (N=5)	24,000 (N=8)	33,000 (N=32)
2018 Annual revenue	30,000 (N=37)	61,000 (N=11)	22,000 (N=20)	32,000 (N=68)
2019 Annual revenue	34,000 (N=53)	23,000 (N=16)	23,000 (N=47)	28,000 (N=116)
Monthly revenue (Jan 2020)	2,000 (N=107)	1,900 (N=34)	1,700 (N=74)	1,900 (N=215)

For the total sample averages, we see consistent and plausible average revenue values. Mentored entrepreneurs have lower annual revenue than Type 1 or Type 2 groups, possibly because they are smaller enterprises. However, sample sizes are extremely small for certain data points, whereas the values for monthly revenue have larger sample sizes and values are relatively stable across type. Monthly revenue is a more detailed and recent data point and is thus more likely to be accurate than annual revenue figures.

6.2 Job creation

Our study provides no evidence that mentorship created jobs. Job creation was calculated from the number of employees of operational MicroMentor businesses each year, not including possible self-employment of the respondent, and weighted by full-time, part-time and temporary

[8] After removing outliers, the coefficient of variation of the revenue data (standard deviation/mean) is well over 1 ir

employment. Our primary tool to assess job creation was a 'difference in difference' analysis, looking at the change in jobs between baseline (before mentorship) and end-line (after mentorship) for each cohort, comparing the mentored and non-mentored groups. We controlled for factors that might have influenced this relationship, including numbers of mentors reached out to (as a proxy for enthusiasm) and the maturity of the business. This did not show a significant relationship between mentorship and job creation, either from 2017-2018 or from 2018 to 2019. Additionally, we conducted statistical tests to compare mean employment between groups in each year, rather than comparing the changes between years. This also did not find a statistically significant difference between mentored and non-mentored entrepreneurs on job creation. The table below shows that Type 1 entrepreneurs have larger ventures and are the only group to have experienced growth from 2018-2019. While the mentored entrepreneurs (type 3) lost slightly fewer jobs than those who exchanged messages but did not receive mentoring (type 2), this difference is not large and not statistically significant.

Table 10: Percent change in jobs by year

Outcome	Type 1 (no exchange with mentors)	Type 2 (exchanged messages, no mentoring)	Type 3 (mentored)
Average jobs across years	7.9	2.8	3.7
Jobs in 2017	6.5	4.5	4.5
Jobs in 2018	5.7	3.4	3.8
Average change in jobs from 2017-18	-0.8	-0.9	-0.7
Average growth rate from 2017-2018	-12%	-20%	-16%
Jobs in 2019	7.8	3.1	3.6
Average change in jobs from 2018-19	2.1	-0.3	-0.2
Average growth rate from 2018-2019	37%	-8%	-5%

However, there is indicative evidence that mentored entrepreneurs more often saw a dramatic increase in jobs between years. The above table shows the average of job creation across all ventures. An alternative method of estimating impact is to calculate job creation as a percentage of total employment for each entrepreneur, and then average this figure. This method is more sensitive to high-growth small businesses, as a one-person business that hires an additional staff member increases the job total significantly in percentage terms (100%), but not in absolute terms (1 job). When we use this method, mentored entrepreneurs for 2017 to 2018 experience a growth rate of 18% on average while Type 2 entrepreneurs grew at an average of 4%. From 2018 to 2019, mentored entrepreneurs experience an average growth rate of 30% while type 2 entrepreneurs grew at 21% on average. This indicates that mentored entrepreneurs include more smaller, high-growth businesses.

We might not expect an impact on job creation in this data, given that mentoring consisted of short to medium-term business advisory services and was not a high-intensity intervention. A mentor's advice could impact business growth; however, this would likely be a downstream effect. Though our overall sample was large, sample sizes were significantly reduced when comparing jobs between years. Despite this limitation, we find that it is unlikely that mentoring has had an observable impact

on job creation for this sample. Our qualitative interviews also provided mixed results, as a few mentored entrepreneurs reporting hiring additional staff as a result of their mentorship, and in other cases mentors advised entrepreneurs not to hire staff. These decisions were context specific to whether a business was growing at a rate to necessitate new hires and to the business strategy as a whole. One respondent was advised by her mentor to pursue partnerships and ended up incorporating contacts from her partnerships into her team as part-time staff.

6.3 External finance

There is evidence that mentored entrepreneurs are more likely to receive external finance for their venture. There was a positive, statistically significant relationship between mentoring in a certain year and whether the business received external financing that year, for 2017, 2018, and 2019. Entrepreneurs mentored in 2017 are approximately 7% more likely to receive external finance in 2017, mentorship in 2018 made receiving external finance in 2018 11% more likely, and entrepreneurs mentored in 2019 were 6% more likely to receive external finance that same year. We also tested for a lag effect between mentoring and external finance the following year, and there appeared to be a delayed effect of mentoring from 2017 on external finance in 2018 (mentoring in 2017 making external finance in 2018 8% more likely), however not for 2018 mentoring on 2019 finance.[9]

To calculate the increased level of financing we used a model to control external factors, giving us more confidence that mentoring caused increased financing. This analysis used a linear probability model, which is simply a regression model for a binary outcome variable (i.e. received external finance or not), to regress mentoring on external finance in that same year or the following year.[10] It is important to highlight the limitation of upward selection bias for this effect because mentoring (treatment) is not randomly assigned but rather is dependent on endogenous factors such as the entrepreneur's motivation or the viability of their venture. Because these factors could also impact the likelihood of receiving external finance, there is bias in the model. Despite this limitation, the magnitude of these results suggests that there could be a mentoring effect. Moreover, we mitigated this by controlling for the number of potential mentors an entrepreneur reached out to as a proxy for motivation, whether a business was in the idea stage vs. operational stage or beyond, and gender. Of these explanatory variables, a business being operational consistently had positive and statistically significant effect on the likelihood of receiving external finance (effect sizes ranged from 7-12%, p values at the 98% confidence level).

Table 11. External finance outcomes by business type

Year	Outcome	Type 1	Type 2	Type 3
2017	# financed	8	5	26
	% financed	**4%**	**8%**	**12%**
	Avg value of funding (USD)	4,500	7,060	4,300
2018	# financed	12	5	38
	% financed	**5%**	**8%**	**17%**
	Avg value of funding (USD)	4,400	4,600	4,100

[9] Coefficients for 2018 and 2019 models are statistically significant at a 95% confidence level (for 2018 p=0.001, for 2019 p=0.04). For the impact of mentoring in 2017 p=0.06, and for the effect of 2017 mentoring on 2018 p=0.07.

[10] The coefficients of a linear probability model can be interpreted as the change in probability that the binary outcome will equal 1 with each unit increase in the explanatory variable. In this case, it is the change in the likelihood of receiving e

2019	# financed	12	9	26
	% financed	**5%**	**13%**	**12%**
	Avg value of funding (USD)	1,100	3,300	1,100

The percent of entrepreneurs receiving finance is more meaningful than the value of external finance received. The table above shows a considerable difference in the percent of mentored entrepreneurs receiving external finance, but the dollar value of the funding is inconclusive. Only in 2019 do we see a statistically significant positive difference in terms of the average USD value of external finance received (p=0.03). The small sample sizes make the data sensitive to outliers and difficult to assess.

Mentoring provided entrepreneurs with the motivation to apply for financing, and to improve the quality of their pitch. Of the entrepreneurs who reported actions taken based on their mentors' advice, 11% of examples were related to financial management. This included support on external financing. One entrepreneur noted, "My business was on start-up/idea stage, [and] the mentor took me through how to secure finance for starting the business that will not affect my returns and stress the business." Another entrepreneur reported receiving technical support specifically on how find potential sources of funding, write an application for grant funding, and navigate the application process. This respondent received a grant 4 months later, which allowed him to expand his agrobusiness. Other respondents mentioned mentor support on pitching their business to investors and general financial planning. We found no reports during our qualitative interviews that mentors directly provided financing to their mentees.

6.4 Self-employment

Self-employment among MicroMentor users is overall high and is higher among Type 3 (mentored) entrepreneurs compared to Type 2 entrepreneurs. Entrepreneurs with ventures beyond the idea stage were asked about their personal earnings from their enterprise. Self-employed entrepreneurs, those indicating that the venture is their primary source of personal income, comprised 67% of respondents. Self-employment data reflects a similar pattern to employment data as operational Type 1 respondents tend to run larger and more mature enterprises. However, mentored entrepreneurs were more often self-employed at 68%, compared to 59% of Type 2 entrepreneurs who reached out to a mentor but did not receive mentoring. This is an important metric given that the majority of MicroMentor users operate micro-size enterprises and may indicate positive externalities for the user even in cases where the venture is not adding additional jobs to the economy.

Table 12: Self-employment by business type

Outcome	Type 1 (no exchange with mentors)	Type 2 (exchanged messages, no mentoring)	Type 3 (mentored)
Number of self-employed entrepreneurs (Sample size)	138 (198)	44 (75)	126 (185)
Percent self-employed	70%	59%	68%

Regression analysis suggests that mentorship is associated with a 11% higher likelihood of being self-employed. This suggests that MicroMentor may support entrepreneurs to become

self-employed. We should note, however, that the P value is borderline ($P < 0.1$), meaning that we cannot rule out this effect happening by chance. Since we did not have longitudinal data on self-employment, it is also harder to show causality.

6.5 Business survival

This study's findings are inconclusive in regard to business survival. There is no evidence that mentored entrepreneurs and non-mentored entrepreneurs who reached out to potential mentors differ on business stage. Type 2 non-mentored and Type 3 mentored entrepreneurs are not statistically different when it comes to the proportion of businesses that are operational (progressed beyond the idea stage), or the proportion of businesses that are generating revenue or profits. Of the entire sample, about 6% of businesses had ceased operations. The small sample size makes analysis of business closure difficult, and there is no clear difference between Type 2 and Type 3 businesses with regards to business closure. A lack of panel data on business stage limits this analysis as users who engaged with the platform but did not receive mentoring are not a perfect control group.

7 Other topics

7.1 Cost effectiveness

We conducted cost benefit analysis (CBA) to assess the value of MicroMentor, compared to the amount of money spent on it. We used the subjective valuation of MicroMentor's service by mentored entrepreneurs to estimate the value.[11] The discount rate used in this study is 5%,which is based on the literature on social discount rates for developing countries.[12] The main findings of this CBA are summarized in the table below.

Table 13: Cost effectiveness

	Parameter	2017	2018	2019	2020	Total	
1	Entrepreneurs in MM platform (Developing Countries)	4,392	4,571	2,165		**11,128**	Note
2	% of Mentored Entrepreneurs[13]	25.17%	28.57%	25.33%			
3	# Mentored Entrepreneurs	1105	1306	548		**2960**	1 x 2
4	Valuation of MM Service in $/ per entrepreneur (Discounted)[14]	$399	$420	$442	$465		
10	**Total Cost (Developing Countries)**[15]	$ 327,934	$377,353	$198,433		**$ 903,721**	
11	**Cost per mentored entrepreneur**	$ 297	$ 289	$ 362			10/3

Overall, based on a subjective valuation the MicroMentor platform has a net positive valuation of + $365,000 and a cost-benefit ratio of 1.36, implying a cost of $100 yields $136 benefit.

Table 14: Benefit-cost ratio

Social Discount Rate in developing countries	5.0%
Net Discounted Value/ Ex-post NPV	$365,000
Ex-Post IRR	17.50%
Benefit/cost ratio	1.36

7.2 BOS Validation

Previous BOS studies focused on all MicroMentor users, whereas our study excluded developing countries. For instance, BOS 2019 covered 52 countries and 40% of the entrepreneurs were from the U.S. Consequently, the below table contrasts the global BOS 2019 data, data from Latin America and Africa, and our own survey responses.

Table 15: BOS Validation

	Parameters	BOS 2019	BOS 2019 (Latin America	DevLearn 2020

[11] Our approach to CBA uses ex-post future value, IRR, benefit cost ratio, and cost effectiveness. We use SDC (2020) How-to-Note: Financial and Economic Analysis of Projects with a focus on Cost Benefit Analysis (CBA) and Cost Effectiveness Analysis (CEA). E+I Network/Shareweb

[12] Warusawitharana, Missaka (2014). "The Social Discount Rate in Developing Countries," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, October 09, 2014. https://doi.org/10.17016/2380-7172.0029

[13] See table 7: Mentoring by year

[14] See section 3 on valuation. They have been discounted for previous year as our subjective valuation is for 2020.

[15]

			and Africa only)	
	Sample Size	475	245	894
	% Female	44%	37%	29%
Venture Stage	*Idea stage*	43%	**Breakdown not available**	26%
	Operational	23%		20%
	Revenue	26%		21%
	Profitable	8%		25%
What Mentor Value	*% of Entrepreneur receiving mentorship*	*33%*	*32%*	*27%*
	% agree that mentoring was valuable	71%	65%	78%
	% of entrepreneurs take some action	77%	77%	74%
	% agreeing MicroMentor contributed to the success of my business	67%	65%	64%
	% of entrepreneurs accomplish mentoring goals set with mentor	54%	52%	82%
	% mentored entrepreneurs experience improved access to financial resources	*34%*	*37%*	*28.1%*

There is a higher estimated percent of mentored entrepreneurs in BOS, which is likely due to upward response bias. Entrepreneurs who were more engaged in the platform were more likely to respond to the email survey, whereas the phone surveys called participants at random. Interestingly, we also find a lower proportion of women entrepreneurs in the present study compared to the BOS 2019, even comparing to Latin America and Africa alone.

7.3 COVID-19

The majority of respondents were negatively impacted (32%) or very negatively impacted (33%) by COVID-19, while 25% reported neutral or no impact. For entrepreneurs negatively affected, these impacts were mainly seen through a decrease in sales (61%), risk of closure (21%), actual closure (12%) or layoff of employees (12%). The 30% of respondents that cited "Other" consequences of COVID-19 mentioned issues with production, logistics, and supply chains and general closures due to lockdown as well as increases in prices and delays in legal or funding procedures.

There is room for mentors to support entrepreneurs response to COVID-19. Entrepreneurs felt that they need support on marketing (48%), business strategy (39%), applying for funding (36%), financial planning (32%), and finding alternative sales channels (26%). Qualitative responses emphasized a need for assistance with conducting business online, including advice on digital marketing resources, orientation to useful web tools, strategies for managing human resources online, and suggestions for ways to communicate with clients online. Just 46 survey respondents report having received mentorship during the pandemic, and most of these entrepreneurs responded neutrally, which may suggest that there is room for mentors currently engaging with entrepreneurs to improve how they address issues related to COVID-19 with their mentees.

8 Conclusions and recommendations

8.1 Conclusions

Entrepreneurs made meaningful connections with mentors and took actions based on mentoring. Many entrepreneurs who actively engaged with the MicroMentor site and had an operational venture were able to make meaningful mentoring connections. Mentored entrepreneurs valued the mentoring service highly, and mentoring relationships often led entrepreneurs to make critical decisions about their business or take action following mentors' advice.

Mentoring led to an increase in external finance, and possibly to an increase in self-employment. Mentored entrepreneurs were more likely to access external finance for their venture. They were also more likely to be self-employed, though the lack of longitudinal data limits our confidence in that outcome.

Though there is evidence that mentoring has intermediate effects, high-level business outcomes of revenue and job creation were inconclusive. Downstream impacts on revenue and job creation are difficult to pick up for this type of intervention and for a dataset with so much variation. Short- and medium-term findings on mentoring suggest that high level outcomes could be impacted down the road.

This section provides recommendations to improve impact by reaching greater numbers of entrepreneurs and strengthening mentoring relationships. We also suggest areas for further evaluation and analysis. Recommendations draw from the evaluation findings described above, alongside a webinar held with the MicroMentor team on the 27th of July, during which the findings and recommendations were discussed.

8.2 Recommendations for implementation

8.2.1 Strengthen screening and matching mechanisms

Respondents in our interviews stressed the importance of strong screening for both mentors and entrepreneurs. The mentoring needs of entrepreneurs vary, especially for users at the idea stage, who are curious about entrepreneurship but do not fully understand what support they require. Similarly, mentors vary widely on what they can offer to entrepreneurs. Screening is currently done using a questionnaire when entrepreneurs or mentors sign up. We recognise a trade-off between a long screening questionnaire and a simple registration process, so in some cases the existing screening questionnaire could potentially be shortened, for example simplifying the range of industries which registrants choose from. In other areas, there is potential to collect more relevant information. During our webinar, the MicroMentor team suggested collecting:

- Entrepreneur's business stage (potentially using the same categorisation used in this survey and the BOS).
- Entrepreneur knowledge and understanding of business practices.
- The time commitment that can be made by the entrepreneur and mentor.
- Mentor's understanding of developing country context and languages.
- Expectations of both entrepreneurs and mentors. In particular, it is important to understand whether entrepreneurs are interested in specific technical skills or general strategic support.

Strengthen mechanism for matching entrepreneurs and mentors. A tool to match mentor skills with entrepreneur needs could reduce the time and effort required for entrepreneurs to find a

mentor, and for mentors to decide which entrepreneur(s) to engage with. This also addresses the varied and

specialized needs from different entrepreneurs. For instance, idea stage entrepreneurs may require different type of mentoring support – such as start-up/seed capital etc., which requires mentors with specific skillset. Other characteristics upon which mentors and entrepreneurs could be matched include desired time commitment and availability/schedule, language, country expertise, years of experience, industry or sector, and technical knowledge such as legal knowledge or other specific expertise. This matching tool could be embedded in the platform to help mentors and entrepreneurs filter relevant and available matches. Though not all entrepreneurs will ultimately be selected by mentors, this can cut down on the time active entrepreneurs put toward finding a mentor and increase the chances of success. An interesting suggestion from the webinar was a Tinder-style matching mechanism, mimicking the swipe left/right action to provide an engaging way for entrepreneurs and mentors to find each other.

8.2.2 Address the information gap for entrepreneurs

Many entrepreneurs struggled to use the platform. Though MicroMentor have tested various approaches to helping entrepreneurs understand the platform, 23% of non-mentored entrepreneurs cited not knowing how to contact a mentor as their reason for not making a connection, particularly entrepreneurs in the idea stage. This suggests that mechanisms to assist entrepreneurs in building their profile and reaching out to mentors could be improved to further prompt entrepreneurs to reach out to potential mentors. Specific suggestions from our webinar were:

- Short introductory videos guiding users through the website. Participants also noted the challenge of limited and expensive bandwidth in many developing countries, so it is important that any videos are not set to auto-play.
- Using a chat-bot that walks users through the process and provides additional information as requested. Messaging the chat-bot could mimic the process of messaging a mentor, ensuring that new entrepreneurs understand how to send their first message.
- Providing more tool-tips and context-specific information to help users understand the various options on the website.

8.2.3 Deepening the mentoring relationship

Help users stay engaged on and off platform. Respondents reported failing to notice MicroMentor notifications, causing their usage to drop off. A mobile app that sent push notifications could boost communication between mentor pairs and improve the quality of communication. Furthermore, a timestamp on the platform showing the last time a user was active can also help signal availability / engagement level to mentors and entrepreneurs. Given that most mentoring relationships are taken off-platform at some point, MicroMentor could consider embedding tools in the site that allow video or audio call communication, attaching files, sharing screen, etc.

Provide additional resources and peer-mentoring to help entrepreneurs. Some entrepreneurs requested additional resources embedded on the site, or additional services in addition to mentoring. Suggestions by mentors and entrepreneurs for added services included resources on how to apply for funding, links to sources of external finance, basic legal templates, and webinars on business topics (one respondent specifically mentioned post-pandemic ventures). Moreover, the platform is limited to entrepreneur and mentor engagement. With the limited number of mentors on the platform, existing mechanisms for peer mentorship could be emphasized or strengthened.

This might be particularly relevant for idea stage entrepreneurs, for whom mentoring may not yet be appropriate.

8.2.4 Expand the mentor network

As MicroMentor seeks to expand its reach to impact entrepreneurs in developing countries, mentors from these contexts must also be encouraged to join MicroMentor. This is particularly important given that some entrepreneurs struggled to find a mentor who would take them on, contacting 4.35 on average before finding a match. Mentors may be more likely to select entrepreneurs with whom they share business interests as well as language and culture. Bringing diversity to the mentor population can improve the mentoring experience for users in developing country contexts. MicroMentor currently focuses on Facebook advertising and select partnerships to draw in new mentors. One suggestion from our webinar was to deepen connections with local influencers, agencies and NGOs who could connect with appropriate potential mentors. This might include social organisations like Lions Clubs or Rotary Clubs, NGOs promoting entrepreneurship, or local business networks.

Explore how mentors can be incentivised. Ideas from our webinar included the opportunity for mentors to learn and develop through their mentoring experience. If a certified MicroMentor diploma could be offered after a certain amount of mentoring, it might provide a tangible reward for the service.

8.2.5 Focus less on idea stage entrepreneurs

For idea stage entrepreneurs, the focus can shift away from mentoring and instead guide entrepreneurs toward basic information and other resources. Our quantitative and qualitative analysis suggests that early idea stage entrepreneurs are often not yet ready for mentoring. These users reached out to fewer mentors, had difficulty knowing what they needed from mentoring, and struggled to push their idea toward an operational venture. They also showed lower intermediate outcomes, such as satisfaction with mentoring or specific actions taken. Given that idea stage entrepreneurs more often need access to basic resources rather than strategic or specialized advice, MicroMentor can target these individuals through a screening mechanism to understand whether they are 'mentor-ready' and if not, direct these users toward other business resources.

8.2.6 Consider paid services

We found some appetite among entrepreneurs to pay for a premium service, guaranteeing time from a mentor appropriate for their needs. We also found that several mentors on the platform already work as professional mentors or support businesses in other contexts. While any change to paid services should be treated with caution, it may be worth an experiment.

8.3 Recommendations for data gathering

Phone surveys provide better response rates, data quality, and representativeness than email surveys. Our overall response rate of 22% is considerably higher than that from the BOS email survey, in which 6% of entrepreneurs responded. A phone survey thus reduces response bias, particularly when assessing the percent of mentored entrepreneurs. The BOS email survey found 33% mentorship, compared to our estimate of 27% mentorship. Although our survey still has self-selection bias, the relatively high response rate mitigates this and makes it more likely to be a valid estimate. Phone surveys also allow the researcher to tailor contact attempts or oversample from harder-to-reach groups such as low engagement entrepreneurs, which could be a useful strategy for MicroMentor's future surveys given that our study had lower response rates among non-users of the site. It should be noted, however, that our response rate was boosted by the

requirement to include just developing countries. During piloting we called some people in developed countries and found it very hard to make a connection. Consequently, a phone survey sampling from the whole MicroMentor user base might have a lower response rate.

A baseline and end-line survey can be streamlined into one survey. It may be advisable to streamline the BOS process of conducting both a baseline and end-line survey, and instead conduct one survey which covers multiple points in time. Because our survey asked respondents about business outcomes and mentoring over multiple years, our dataset was able to function as panel data because it contained the same estimates at multiple points in time. This could effectively eliminate the need for baseline and end-line data collection activities.

Data collection should consider the lag effect between sign-up and mentorship. Surveys should either cover entrepreneurs a year after their sign-up date or should take place at 2 or 3-year intervals. This could improve data on mentorship and business outcomes given the common delay between the sign-up and mentoring on the site. This approach was successful for this study, and is validated by the fact that response rates did not appear to drop off considerably with the time passed since the sign-up date. Alternatively, data collection could incorporate more granular data on exactly when mentoring began, potentially drawing on user data from the platform, in order to better understand the lag period between sign-up and mentoring. This information could be incorporated into sampling to determine how long after sign-up a survey is likely to capture mentoring.

Consider in-house resources for data collection, to enable longitudinal data collection or rapid pulse checks on topics of interest. This research may raise areas for further research or granular follow-up on indicators of interest or key subgroups. A tracking tool that pinpoints important new learnings from this evaluation and identifies light touch ways to follow up on key interest groups can help MicroMentor hone their data gathering activities to better target strategic planning. Having in-house enumerators and systems that enable nimble data collection activities would allow flexibility to gather data on an as-needed basis. For example, this might involve a survey conducted on a quarterly basis of a small sample of MicroMentor users (say 100). While this will require some effort to set up, once the system is running it will provide a strong source of high-quality, longitudinal data, at a moderate cost. New questions can then be integrated into the existing survey relatively easily.

To get good data on revenue, survey within one country or region. Representative estimates of business outcomes, particularly revenue, were difficult to attain without a massive sample size. This is partially because the survey covers over 50 countries, and MicroMentor users comprise a small and diverse percentage of each country's population. Therefore, there was high variation both within and between countries in terms of the size, structure, sector, and economic context / operating environment of a venture. A survey administered within one population with a high volume of users, such as India or Mexico, focusing on a more limited set of venture types, might more successfully capture business outcomes.

Besides better representation of mentorship, there were other benefits to conducting a phone survey. Enumerators were able to ask nuanced questions on mentoring and obtain data on business outcomes over time by explaining questions over the phone. Surveyors also described building a rapport with respondents by listening to them describe their venture, or chatting about COVID-19 lockdown, which can improve data quality and minimize incomplete surveys. For example, the question on valuation of mentoring, normally a difficult question to interpret, received a relatively high response rate of 59% with a high degree of data quality – something that would be difficult to obtain via email survey. Our enumerators described prompting respondents on questions like

revenue and ensuring that they are in local currency, which resulted in relatively good response rates and good quality data that contained fewer outlier / extreme values as compared to the BOS.

Despite the benefits of phone surveys, there are some drawbacks. A few enumerators reported respondents refusing the phone survey, preferring instead to receive the questionnaire by email and fill it out themselves at a convenient moment. For future surveys, a dual approach could be used in which respondents that refuse the survey can be emailed a survey formatted for them to fill out online. Additionally, email surveys are less cost and time intensive.

Given these trade-offs, if MicroMentor do choose to carry out phone surveys in the future, the following lessons learnt from this activity can provide some guidance:

- **Survey Protocol.** To reduce time and resources, the third calling attempt can be cancelled. The first two calling attempts accounted for 88% of interviews completed. It is important for enumerators to schedule interviews with respondents and follow up with them, as this boosted the number of interviews. Emails were not a useful way to schedule interviews. We tried to use email in some African countries (with high call costs) to schedule an interview, but responses were low, and the time required from enumerators was inefficient. WhatsApp calls were successfully used in our African interviews to reduce calling costs. However, our enumerators emphasized from their previous experience that it is important to call via phone for the initial contact, and obtain permission to switch to a WhatsApp call. A possible downside of using WhatsApp is that some enumerators received WhatsApp inquiries from survey respondents after the interview, which enumerators might find inconvenient.
- **Centralized calling mechanism.** AirCall, a cloud-based call centre platform, was extremely useful for streamlining survey management. It enabled all surveyors to work from one calling platform, with statistics summarized on a central dashboard. It also protected the identity of surveyors by preventing them from using their own account or phone number. One example of how the calling platform was useful was a case in which one enumerator reported making call attempts on his tracking sheet yet was not shown to have made calls on the AirCall dashboard. This enumerator was ultimately removed from the team, an issue that may have been difficult to identify without the AirCall management dashboard.
- **MicroMentor email alert**. Anecdotal accounts from enumerators suggest that this email boosted response rates as it reassured respondents that the surveyor was indeed associated with MicroMentor and validated the legitimacy of the survey. During initial DevLearn piloting, before this email had been sent, one respondent refused to participate in the interview because he could not verify the credentials of the caller.
- **Language.** The preferred language in MicroMentor's site data is frequently incorrect – generally marked as English when it should be Spanish or French. Alternatively, there were respondents who were not comfortable being interviewed in English, but perhaps their language was not an option on the site (Arabic for example). For future surveys, it may be more effective to assign respondents to be interviewed in the primary official language of their country rather than by preferred language marked on the site.
- **KoboCollect**. KoboCollect worked well for this survey, providing accessible data updates and seamless collating of different language surveys (surveys in different languages are matched to the corresponding English questions / responses so that all data is automatically converted to English). However, the complexity of the data and skip patterns may have been reduced by a different survey software that relies on a standard syntax, such as SurveyCTO. However, Kobo is likely the best option in terms of user friendliness. Data collection took place on both the mobile app and web form with minimal bugs or issues.
- **Incentives**. Because we did not test response rates by incentive, it is impossible to know whether it was successful in boosting response rates. There were a couple cases of

respondents being confused about the incentive, thinking that everyone who participates would receive a cash prize.

MicroMentor's MERL team may want to follow through on key findings of this evaluation in order to enrich their understanding of mentoring and its possible impact. These activities could include targeted qualitative interviews or small-scale surveys, in order to enhance the available data that informs MicroMentor programming.

- **Fine-tuning user typology.** This research created a framework for understanding how passive, Type 1 users are different from more engaged Type 2 users, who also have fundamental differences with Type 3, mentored users. Further research could explore this typology to understand the difference between Type 2 and Type 3 businesses, particularly why Type 2 users did not make a connection despite their engagement with the platform.
- **Assessing business survival.** This evaluation was only being able to compare business stage at one point in time. In order to reduce bias introduced by the lack of a perfect control group, in future phone surveys MicroMentor could analyse business stage over time to better evaluate whether businesses are more likely to progress toward earning profits and/or less likely to close if mentored. This analysis could compare business stage at different points in time either by, 1) looking at business stage at one-year intervals from the business start date, or 2) looking at business stage at the same dates and intervals for all businesses, for example the first day of each year. The former will line up with progression from the venture start date while the latter will ease potential analyses with other indicators such as annual revenue.
- **Considering self-employment.** For the large numbers of micro-sized enterprises that are on MicroMentor's platform, the nature of personal income from the venture is an important indicator to measure. We recommend that future research collect self-employment data over time to track potential effects of mentoring on the entrepreneur's personal earnings. This data can mirror yet be distinct from tracking of additional jobs generated by the venture, as the nature of self-employment of an entrepreneur is often distinct from jobs added to the economy in terms of wage and job security.
- **Understanding missed connections and barriers on the platform.** This survey examined why users did not make a mentoring connection. MERL could explore this question in depth to understand which variables best predict mentorship, including business features (idea stage, business size and maturity, sector, country and language context) and user engagement (number of mentors contacted, completeness of profile). This could fine tune targeting, support, and matching mechanisms that attempt to reach greater numbers of mentored entrepreneurs.
- **Other topics:**
    - **Short-term business pivots**. Our qualitative analysis provided a few examples of businesses making significant strategic changes in their business based on mentoring. This phenomenon could be explored further through targeted interviews.
    - **Covid-19**. Our study fell at the beginning of the Covid-19 pandemic but future research could better capture the economic impact of the crisis on entrepreneurs.
    - **High-intensity connections.** We can also learn from entrepreneurs that had uniquely high intensity mentoring. For example, users who connected with multiple mentors or had a particularly long-term connection with their mentor could be interviewed for a deeper understanding of how these mentoring relationships differ from others.
    - **Experiences of Asian Entrepreneurs.** We noted that Asian entrepreneurs are using the site differently; they are more likely to be in idea stage and less likely to be mentored. Qualitative interviews could explore exactly why this is.

- **Gender.** Women represent a smaller proportion of MicroMentor users. Targeting of female entrepreneurs could be built into future research, particularly pertaining to screening and matching.