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Copreneurial women in start-ups: Growth-oriented or lifestyle? An aid for technology industry investors
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## Copreneurial women in start-ups

Growth-oriented or lifestyle? An aid for technology industry investors

Copreneurial women in start-ups

181

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# Mujeres coemprendedoras en start-ups

## ¿Crecimiento del negocio o estilo de vida? Apoyo a inversionistas en la industria tecnológica

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#### Abstract

**Purpose** – Latin American investors are commonly suspicious of investing in copreneurial ventures (a male and female couple, integrated as a working team) and show even higher levels of uncertainty when the start-ups are led by a female founder. The purpose of this paper is to address issues related to women as leaders in copreneurial tech ventures and analyses whether these ventures are growth-oriented or conform to limited partnerships aimed primarily to meet their living standards.

**Design/methodology/approach** – A qualitative, inductive and constructive approach was required for addressing the research question. Three copreneurial women and two divorced copreneurs were interviewed. A grounded theory approach was used to analyze data and emerging themes.

**Findings** – Copreneurial teams that work in the technology industry have similar and complementary levels of education and skills development. After three years working together, each partner becomes well aware of mutual skills and strengths. This allows them to define their respective roles. Both divide work and family, and have developed a level of mutual trust and commitment that is essential to move forward. Commonly they show workaholic tendencies with a high rational underpinning. All of these factors strengthen collaboration and in many instances this business liaison can remain intact despite a breakdown in the partners' sentimental relationship. Additional findings show that their growth orientation takes multiple structures.

Practical implications – This study provides information that can help investors make decisions to support copreneurial teams that optimize from the use of diverse talents of female and male partners. Originality/value – Although representing an increasingly common type of start-up team, copreneurship in technology has not yet capture much attention of scholars as case study in family business research.

Keywords Latin America, Entrepreneurship, Growth strategy, Copreneurs, Female founders, New high-technology ventures

Paper type Research paper



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## ARLA 29.2

#### Resumen estructurado

Objetivo – Inversionistas latinoamericanos usualmente prefieren no invertir en negocios de coemprendedores (parejas en una relación amorosa y de negocio) y sienten incertidumbre cuando esos equipos están liderados por mujeres. Este artículo aborda los asuntos relacionados a mujeres que lideran equipos coemprendedores en negocios tecnológicos y analiza si ellas buscan el crecimiento de su negocio o se limitan a sustentar el estilo de vida.

**Diseño/metodología/aproximación** — Responder a la pregunta de investigación requirió una aproximación cualitativa e inductiva. Tres coemprendedoras y dos coemprendedoras divorciadas fueron entrevistadas. Se analizaron los datos y crearon temas emergentes siguiendo la teoría fundamentada.

Resultados – Equipos coemprendedores en la industria tecnológica tienen niveles de educación y habilidades similares y, a la vez, complementarios. Luego de tres años trabajando juntos, ya conocen las habilidades y fortalezas de la pareja. Esto los ayuda a definir mejor sus roles. Ambos tienen un estilo segmentador que divide trabajo y familia. Desarrollaron un alto nivel de confianza y compromiso que es esencial para seguir adelante. Son normalmente equipos trabajólicos y muy racionales. Todos estos factores fortalecen la colaboración y permite incluso que el negocio persista por sobre la relación amorosa. Además, estos equipos están orientados al crecimiento, y de diversas maneras.

Implicaciones prácticas – El estudio incluye información dirigida a facilitar la toma de decisiones de inversionistas respecto a cómo invertir apoyando a los equipos coemprendedores para optimizar la diversidad de talentos de la pareja.

Originalidad/valor — A pesar que es cada vez más común ver coemprendedores como configuración de equipo de start-up, el tema no ha recibido mayor atención de académicos como estudio de casos en la investigación en empresas familiares tecnológicas.

Palabras clave emprendimiento, coemprendedores, coemprendimiento, start-ups, mujeres fundadoras, América Latina, estrategias de crecimiento

Tipo de papel Trabajo de investigación

#### Introduction

The massive growth of internet and technologies on the market is significantly inducing the expansion of start-ups. Start-ups are temporary organizations, which are created with the intention of discovering a profitable and scalable business model[1] (Blank, 2010). Globally, many social actors, such as business schools, public agencies, and industries, are enhancing this type of business organization.

In Chile, in 2010, the government created the Start-Up Chile program, a public accelerator agency intended to expand the entrepreneurial ecosystem and promote a pro-entrepreneurship culture "importing entrepreneurs" from other countries (Leatherbee and Eesley, 2014). Today, Chile is considered one of the most important innovation hubs in Latin America and around the world, often referred to as "Chilecon Valley" (*The Economist*, 2012; *The Washington Post*, 2014).

At the same time, a notable increase of women in the fields of science, technology, engineering and mathematics has induced women to create and lead start-ups. Nonetheless, Robb and Coleman (2009) report that only 5 or 6 percent of high-technology entrepreneurs in the USA are women, and as low as 3-5 percent of the incubated/accelerated start-ups are led by women. This demonstrates a very low representation of women in the high-uncertainty, competitive, fast-changing, high-growth and high-income potential technology industry.

Most new high-technology ventures – NHTV or start-up – begin as informal businesses with a small team, and with the objective to develop and leverage technology to make the start-up profitable. Commonly, there are three business stages in a NHTV. The first is "product development". This stage includes the development of an idea (ideation), prototype design, product development and validation with potential users, business model pivoting, and the search for seed capital funding. Second, the growth stage includes raising venture capital (VC) and scaling to an approximately

10 times growth rate. Normally, entrepreneurs pitch[2] to investors, trying to attract interest and showing their traction. At this stage, the NHTV needs to be incorporated to secure funding from private investors. Investors provide copreneurs with access to important networks, mentorship options, boards, and assistance in decision making in exchange for equity (business participation) and a specified return on investment. Third, at an advanced stage, start-ups are recognized as the "heavyweights" that sell the company (exit strategy), acquire other start-ups, or make an initial price offer.

Due to the increasing participation of women in higher education, they have begun to lead high-technology ventures in Latin American countries. Some of these women have involved their significant others/romantic liaisons as their co-founders. In the family business literature (Fitzgerald and Muske, 2002), couples that share a sentimental relationship and a work relationship in the same business are referred to as copreneurs.

The literature shows that family businesses have a tendency to be more risk averse and to secure the family before their business ventures and growth potential (Smith, 1967). In a similar vein, Fitzgerald and Muske (2002) suggested that when compared to non-copreneurial family firms, copreneurs – known as "lifestyle entrepreneurs" – are more likely to prioritize the business venture as a way of life than a source of income. This outcome raises the research question that guides this study regarding whether copreneurial teams in the technology industry see their company as a lifestyle or as a venture with growth and scalability orientation.

The findings of this study provide new information on technology copreneur couples that can facilitate the decision making of investors to assess the capacity of copreneurial teams. They can also help couples that are engaged and interested in learning strategies to synchronize and improve their personal and business relationships in startup ventures, adding a significant opportunity to increase access to external financing to run their businesses.

The analysis starts with a review of the literature about copreneurs' orientation of business growth and female founders in the technology industry.

## Literature review

Copreneurs' orientation to business growth

Family businesses, which represent a significant segment of production contributing to the economic growth of countries around the world, include a subcategory referred to as the copreneurial couple. The term was coined by Barnett and Barnett (1988) and refers to couples who have joint ownership and who are committed to - and responsible for – a shared business[3]. An estimation by Dyer et al. (2013) indicates that at least 80 percent of businesses worldwide employ family members, and one-third of these include spouses. A review of the literature on copreneurs reveals the settings of traditional copreneurial businesses that include farming, high-level crafts, retail, hostelry/tourism, business services, auto sales and national or local franchises. According to Cole and Johnson (2007), the literature highlights four main concerns associated with this type of business venture: the dual relationship topic; emphasis on preserving marriage; coping with a dual role; and the role of gender and the division of labor.

Past evidence reveals that copreneurs have more specific, traditional and clearly defined roles than dual-career couples (Marshack, 1994). Danes and Olson (2003) found that the higher the level of a woman's involvement in the business, the higher the degree of business – family conflict. Successful copreneurs were commonly older and slightly more educated (Fitzgerald and Muske, 2002) than non-copreneurial business managers.

Copreneurial women in start-ups

## ARLA 29.2

184

Some descriptive studies suggest differences in orientation and growth expectations of copreneurial businesses which might have contributed to giving the sector a bad reputation. Comparing a sample of copreneurs with non-copreneurs, Fitzgerald and Muske (2002) found that in a small sample extracted from the 1997 National Family Business Survey, non-copreneurial firms were more successful in financial terms than copreneurial firms. The comparison also showed a significant difference indicating that copreneurs, unlike non-copreneurs, perceived business as a way of life rather than as a way of earning income and creating a sustainable business. The same study found that copreneurs are more likely than individual entrepreneurs to have a home-based business. Moreover, Muske and Fitzgerald (2006) suggested that the differences noted in a preliminary analysis of copreneurs and non-copreneurs are not consistent across all business types and industries; this creates the need to further study copreneurs in the rapidly evolving technology industry and in Latin America.

Moreover, Getz and Petersen (2005) analyzed family business owners' attitudes and goals in the tourism and hospitality industry, showing that a majority have a particular lifestyle and autonomy orientation, largely in businesses related to arts, crafts and the bed-and-breakfast industry. On the other hand, a small sub-group of business owners in the hotel and restaurant sectors emphasized profit and growth orientation. These results give rise to the question of whether there are differences in the technology industry. In the technology industry, it is commonly observed that growth- and profit-oriented entrepreneurs who have the capacity to compete will create value and produce scalable ventures that are highly valued. In this industry, job creation and social development are less critical than they are in other productive sectors. Are copreneurial couples in the technology industry geared toward growth or lifestyle?

## Women entrepreneurs in the technology industry

The literature on companies set up and run by women largely focusses on the difference between males and females, particularly related to business performance. It has been highlighted that women-led businesses commonly underperform, that women have less confidence, and that women are underrepresented across business sectors (Martin and Wright, 2005). A recent review of the literature revealed that there is very limited research on technology businesses run by women and even less conducted in Latin American countries (Kuschel and Lepeley, 2016). Fitzgerald and Muske (2002) emphasize the lack of empirical research on copreneurs, while Singh Cassidy (2015) argued about a missing dimension – or or voice in the literature – of women entrepreneurs in technology. This study addresses these two issues by conducting interviews and asking copreneur women about their growth expectations in their technology ventures.

Since capital investors – seed capital, venture capitalists, etc. – are still unfamiliar with women's participation in the technology industry, there are no guidelines to change old paradigms. This study demonstrates the urgency for change and is, despite the small sample, a pioneer in this subject.

## Methodology

This study was conducted to fill the research gap in copreneurial teams involved in technology and their orientation. It is based on a qualitative, inductive and constructive approach. Qualitative methodology is an appropriate strategy for researching an unknown subject such as copreneurial women in the technology industry in Latin America.

In 2014, a global team integrated by researchers from business schools in Chile, Argentina and Venezuela started to conduct an analysis of the experiences of female

entrepreneurs around the world. Given the aforementioned lack of information, special focus was placed on Latin American female co-founders. The general objectives of the broader research project were threefold: describe the experience of women entrepreneurs working in technology start-ups; explore the work-family relationship among technology entrepreneurs; and explore the dynamics in start-ups where the founders are copreneurs. This paper reports the results regarding the third objective and includes the theoretical discussion on copreneurial teams' expectations for growth. Copreneurial women in start-ups

185

## Sampling

After descriptive selective criteria were established (i.e. technology industry, female founder, leading the team), the researchers invited eight female copreneurs to participate in the study and respond to a set of interviews. Within the selected sample: first, three participants met the full criteria as copreneurs sharing business interests with a sentimental and business partner; second, two participants were separated, but were still running their businesses with their ex-partners and were included in the sample following research guidelines created by Cole and Johnson (2007). We excluded from our sample a divorced participant who stopped working with her ex-partner and two participants who were working in Latin America but came from other world regions (e.g. Europe, Asia).

To meet the particular objective of this study, the authors selected five copreneurial women leading new high-technology ventures in Latin America; three women were living with their partners and two had split up, but were running a tech business together. The first group of three women is referred to as "copreneurs" and the second group of two women is referred to as "divorced copreneurs". The authors have coined the term "divorced copreneurs", meaning a physical distance or separation of couples no longer married or sentimentally attached, regardless of the legal implications of divorce and social status.

The sample design considers the incorporation of work-family scholars' suggestions to capture heterogeneity, including cohabiting couples, divorced couples and couples with and without children (Greenhaus et al., 2000; Parasuraman et al., 1997; Voydanoff, 1989; Watkins and Subich, 1995). Moreover, the study includes groups of women who either participated or not participated in an incubation or acceleration program. The sample is presented in Tables I and II.

The sample had a total of five female CEOs in technology ventures, three were copreneurs and two were divorced copreneurs; all were Latin American entrepreneurs: three from Chile, one from Argentina, and one from Venezuela. All reported having small founding teams, and preferred hiring freelancers over full-time employees. Three had

Fictitious name	Country	Industry	Work role	Cofounders + Employees	Accelerated	Business stage
Andrea	Argentina	e-Commerce	CEO	2+8	Accelerated	Growth stage – Internationalization
Beatriz	Chile	Software	CEO	2+4	_	Growth stage – new ventures
Carmen	Chile	Agricultural technology	CEO	2+3	Accelerated	Growth stage – massive production
Daniela	Chile	Software	CEO	2+0	_	Growth stage – new
Elena	Venezuela	Health technology	CEO	5+0	Accelerated	Product development

Table I. Characteristics of the business

ARLA 29,2	Fictitious name	Copreneurial status	Age	Educational background her/him	Marital status + No. children	Years in couple	Years divorced or separated	Age of business
	Andrea	Copreneurs	32	Business/Business	Married (0)	5	0	1.5
	Beatriz	Copreneurs	31	Information technology	Married (0)	8	0	7
186				engineering/ Information technology engineering				
	Carmen	Copreneurs	39	Aerospace engineering/ Aerospace engineering	Married (0)	15	0	1.5
m	Daniela	Divorced	44	Computer engineering/	Divorced (3)	10	2	12
<b>Table II.</b> Characteristics of the copreneurial couple	Elena	copreneurs Divorced copreneurs	26	Computer engineering Industrial design/ Industrial design	Single (0)	3	3	1

participated in at least one accelerator program, such as Start-Up Chile. Four of these start-ups were in a growth stage, while only one was in early product development. On average, the participants' age was 34, they had been in the relationship for an average of 8.2 years and had worked in the ventures for an average of 4.6 years.

### Procedure

The female technology entrepreneurs included in the sample were contacted by e-mail and invited to attend a meeting or a Skype video conference or conversation to discuss and take advantage of opportunities in four networks based in Chile but with presence abroad: Start-Up Chile; Girls in Tech; Women Who Code; and the business schools where the researchers work. The women who agreed to participate were asked to voluntarily refer other women copreneurs in technology, using the snowball technique. This non-probability sampling technique is quite suitable for use when members of a population are hidden and difficult to locate (Morgan, 2008).

To meet the ethical code, during the meeting, the interviewer explained the study verbally and requested a signed informed consent form that included the attributions of researchers and participants and the goals of the research project. The letter was signed by both the researchers and the participants, and participants received a copy. All participants agreed that their interviews could be audio-recorded.

According to the research question, each interview followed a semi-structured script with several questions related to eight topics: motivation and experience as an entrepreneur; funding sources; team structure; most common obstacles; networks used; motherhood expectations; work-family interface; and; copreneurs' dynamics. The questions are presented in the Table AI.

The interviews with the women copreneurs lasted between 40 and 80 minutes. After the meeting, each interview was transcribed *verbatim* and entered into the Atlas.ti v.7.0 software for qualitative analysis.

### **Analysis**

Our data analysis followed a grounded theory approach (Glaser and Strauss, 1967) as a method to find a theory where there are no a priori assumptions or existing theoretical frameworks. The theory provides explanatory power, including controllable and access variables if they do not emerge by themselves. The most important analysis method of

the grounded approach is constant comparison (Glaser and Strauss, 1967), looking for common categories and differences in the data. The coding process was conducted by the main researcher.

First, the main researcher conducted an open-coding, inductively, to identify emerging topics. Significant paragraphs (quotes) were selected and categorized into codes. Second, axial coding was conducted to seek relationships between categories and subcategories. Families of codes were built with related codes. Third, selected coding identified the central categories to interpret the studied phenomena (see Table III).

The "network of codes" in Figure 1 is a visual representation of the type of link (axial coding) relating significant codes.

Discriminant analysis was conducted to test whether this theory fits a different sample (i.e. from one group of copreneurs to another, from one business to another). Constant comparative analysis was conducted to determine consistency between codes and the data in the five selected women from the sample. Using the constant comparative method (Glaser and Strauss, 1967), a new participant was needed to better understand the opinion of investors on copreneurial ventures and their openness to invest in these types of teams. For this purpose, a high-profile Latin American investor was included in this study.

#### Results

Axial and selected coding revealed four emerging themes classified as issues related to the composition of the copreneurial team, the roles at work and at home, growth expectations and coping strategies. Each emerging code is supported by illustrating quotations (originally in Spanish).

## Copreneurial team composition

All the women entrepreneurs shared a similar method of doing business. They fulfilled roles related to business development, marketing and customer acquisition. Beatriz, Carmen and Elena (fictional names assigned by the authors in alphabetical order) met their partners while studying at university. The similarities these women shared with their partners surpassed the professional domain in terms of multiplicity and diversity of interests.

Andrea's partner (also from Argentina) had minor involvement – limited to occasional business advising – in the early phase of her venture. When the venture grew, her partner started to provide direct financing and later made his involvement official with an equity stake and responsibilities for marketing and sales.

First stage coding	In depth coding	Main themes
Couple dynamics	Trust Support Motivation to startup a business	Copreneurial team composition
	Complementary skills, competences Rational	Roles at work and home
	Decision making Division of labor (household, expectations on childcare)	
Success and failure	Shared dream/goal congruence	Growth expectations
	Other projects together Investors	Coping strategies

Copreneurial women in start-ups

187

Table III.

Data structure

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Figure 1. Axial and selected coding

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Elena and her partner were very interested in 3D printing technology, and both wanted to create a new business involving this technology. They met each other while studying industrial design in Venezuela. After a few years of being in a relationship they decided to travel to Chile together and do a six-month internship abroad. Upon their return to Venezuela, they decided to break up and continue on different paths. Back in Venezuela, Elena found an opportunity in manufacturing human prosthetics with 3D printing technology. She immediately started building a team and, due to his knowledge and experience in the field, invited her ex-boyfriend to join this new venture.

A common constraint identified by all the women high-technology venture founders was the hardship of structuring a solid founding team. Although these women valued the skills and knowhow of their partners, they highlighted the fact that the trust between them was the main reason for working together:

He knows the tasks that need to get done (Andrea).

Having a cofounder join your team in a new venture isn't something simple. I've had issues in the past [...] you have to have to trust that person a lot and know them enough for the relationship to withstand the good and bad times. Both cofounders have to be able to easily divide tasks, know their strengths, weaknesses, and be able to say, "ok, you will be in charge of this [...] and how can we complement each other". It's not easy to work from one day to another with a complete stranger in a new start-up (Beatriz).

These results confirm a common occurrence in the technology industry: teams are small and have a low number of employees, and there is a clear tendency to hire freelance workers.

## Roles at work and at home

Andrea, Beatriz, Carmen, Daniela and Elena, the five female founders, demonstrated thorough knowledge of the skills, competencies and interests of their partners. With an average of 8.2 years in a formal relationship, they had established strong bonds and effective coordination that expedited work performance. Their husbands and ex-partners may have been compared to an extension of the female founder with clearly defined work roles.

In the cases of the three women who lived with their partners, the household and domestic responsibilities were shared:

He does the house cleaning and I do the grocery shopping. Although I do it online (giggles) (Carmen).

Women founders acknowledged that there are traditional gender expectations that women – rather than men – should be the main childcare givers in the family:

Taking care of the kids has always been my task. We have a nanny that helps me with that (Daniela).

Strategic business decisions and important family decisions were always made by the couple; this strategy followed, even when copreneur couples ended a marriage or sentimental relationship:

He always had his mind on the long run. I was always focused on the near future, the core of the company, "our sales forecast should be this, our net revenue should be so and so, this will be our roadmap, etc. [...] A couple takes between 1 and 3 years to get to know each other's work style. After that phase, being copreneurs is a competitive advantage over other teams" (Beatriz).

Copreneurial women in start-ups

The segmentation or integration style of dealing with and managing work and family varied among copreneur couples; it largely depended on the style the woman imposed on the relationship.

## Growth expectations

Business growth takes place in different stages that range from internationalization or scaling processes, new businesses development and massive production.

Andrea, the cofounder of an e-commerce platform, is raising private capital to scale to three other countries in Latin America. The orientation is on geographic reach, user acquisition and brand development:

My goal is to raise capital and to launch operations in Chile, Colombia, and Mexico within the next 2 years (Andrea).

Educational software is a stable business that at present allows the founders to seek new business opportunities. Although both co-founder copreneurs are involved in other businesses separately, they are considering the opportunity of working together exclusively to develop new products and services:

Once sales pick up and things are moving accordingly, you can delegate your work to employees and get involved in other side businesses or projects (Beatriz).

The agricultural technology venture that produces a sensor to be installed in vineyards, vegetable gardens and greenhouses provides reliable information to growers. The current orientation of this copreneurship depends on the outcome of raising capital. If they succeed in raising capital, they will scale production to a higher rate. If they do not, they plan to break even as they do now based on sales to current customers, big farmers and small gardens. Here, the woman copreneur's orientation is business growth, while the male partner's orientation is to work in the business as a way of life:

Since I'm well aware of our financial challenges, I would like to begin the manufacturing of our product as it is right now. My husband, who is the CTO, is always finding something about our product that is not perfect. If it were up to him, we would remain "lifestyle entrepreneurs" forever (Carmen).

Daniela is part of the subsample of divorced copreneurs, and receives child alimony from her former husband to support their three children. Her expectations are to construct a successful and sustainable business to ensure a regular monthly income to take care of her children:

This year we want to grow and have a new customer base (Daniela).

Elena and her team of five, including her ex-boyfriend, have growth expectations in spite of the fact that they are the only start-up in this study that is in an early stage of product development.

The five copreneurs with growth expectations support the finding that they are growth-oriented entrepreneurs, and not "lifestyle entrepreneurs".

For the moment, none of the goals involved the next generation (i.e. a family business).

## Coping strategies

Several women founders have tried to raise external capital and have become aware that investors in general avoid funding copreneurial start-up teams.

The case of Andrea illustrates how copreneurs overcome this issue. The investors suggested that only one of the partners should work in the company, not both, and that

the couple should decide who would work. In spite of investors' recommendations, Andrea decided to continue working as the main partner with her husband as a shadow partner. Andrea became the CEO and represents the spirit of start-ups: There were a couple of angel investors interested in investing in our company. [...] In our Copreneurial women in

initial conversations, one of their conditions was that I should be the only full-time partner in our start-up [...] they said that only one of us could work full-time. [...] many did not invest in start-ups run by a husband and wife, or together with family members. [...] Deciding who would end up being in charge of our company was a very hard decision. In the end it was me, vet we are both overseeing our start-up on a day-to-day basis, my husband was with me on Demo Day and was present when we met up with all of the investors, [...] When we were asked to decide who would run the company full-time—apart from the fact that our start-up is the fashion industry – I think that, from a strategic standpoint, it is beneficial to have women CEOs, considering that the amount of women in tech. entrepreneurship is very low. I am always the one pitching the company (Andrea).

Beatriz and Carmen explicitly declared to the interviewer that they preferred not to tell anyone (i.e. investors, customers, or suppliers) that their teams were husband and wife teams:

It is really uncomfortable when I am asked about my relationship with my husband/ cofounder. What's it to them? That is a very personal question, you're not my friend! (Beatriz).

If people don't ask, I will simply not tell them that we are a couple (Carmen).

To follow up on the counterpart of this dilemma, an established Latin American investor was interviewed. She declared that investors need to have enough information to ensure that the team will do what it says, in terms of commitment and business responsibility:

I am always politically incorrect. When I assess a team, regardless of whether it is a man or woman, I will ask them: Does your wife, or husband, know that you are doing this? How long do you have left until you run out of cash? Are you making enough money to pay the bills? Does your wife, or husband, work; do you have healthy kids, is everyone all right? [...] The most important thing is that the family is also moving on the right track, that there is enough money to live the first 6 to 12 months, that your husband or wife knows what you are getting yourself into, and that there aren't any emotional problems going on in the background. The risk that we take as investors is extremely high. That is why when you are looking at an entrepreneur; you're not concerned by whether they are male or female. Your concern is whether s/he is capable of achieving what she or he has planned ahead, if s/he has the required traits, if that person is willing to suffer, fight, and change whatever needs to be changed, and be on the road 360 days a year. To raise the value of a company to millions of dollars, which is what's expected in a venture capital investment, is something extremely hard to achieve (Female investor (40)).

#### Discussion

The following section interprets the results through the current literature. These include: the skills of the copreneurial team; and the growth orientation of the team.

First, the VC literature consistently points to the entrepreneurial team as the most important factor making professional investors decide to enter a company (e.g. Cyr et al., 2000). According to Hmieleski and Ensley (2007), in dynamic industry environments, start-ups with heterogeneous (functional, educational specialty, educational level and skills) top management teams were found to perform best when led not by empowering leaders but by directive leaders with the best performance for homogeneous top management teams. Surprisingly, all of the couples included in the sample of our study have homogeneous educational backgrounds. Entrepreneurial

start-ups

192

teams evolve during the early phase of a venture (Clarysse and Moray, 2004; Vanaelst *et al.*, 2006) and the five copreneurial teams learned to "divide their tasks" at the beginning. After working together for some time, they have specialized their roles making the team more efficient. Gender diversity in management should enhance performance for firms seeking growth (Dwyer *et al.*, 2003). According to upper-echelons theory, senior-level managers (i.e. the copreneurial management team) have a critical impact on firm performance given the significant organizational decisions they are empowered to make (Finkelstein and Hambrick, 1996).

Second, this study supported the idea that copreneurial teams in technology are growth-oriented, and that their growth expectations take different forms. This statement changes the question into "How ambitious is their growth-orientation?" In the high-technology industry, a business venture has the potential to leverage on technology to scale. This global impact makes it easier to be more growth oriented than other industries. When the business has attained a level of sustainability, which is comfortable for both founders, they are able to assign themselves a salary, meaning that the NHTV is attractive to investors and can be sold. This outcome is identified as an "exit strategy" and to "perform an exit" is synonymous with "success" in the technology entrepreneurial ecosystem in Latin America and abroad.

Normally, software companies do not have a scalable business model (Baden-Fuller and Haefliger, 2013; Stampfl *et al.*, 2013). Although they leverage on technology, their potential to grow is limited to their employees or freelancers, and they have a limited capacity of customers, which are normally other companies. Beatriz and Daniela are both re CEOs of software companies. Beatriz expects to be involved in "new businesses", while Daniela expects to have "more clients". In this sector, where software companies compete with bigger software companies, to have increasing revenue orientation might be seen as a "survival strategy" or "slim orientation to growth" rather than an ambitious and aggressive growth orientation. Beatriz and Daniela's growth orientation is similar to traditional entrepreneurship, in which business owners are focussed on the daily activities within a local community. On the other hand, the other three start-ups analyzed in this study (e-commerce, sensor for agriculture and prosthesis for humans) have a very different type of growth-orientation. In these cases, the growth-orientation may not be determined by the type of the team (copreneurs or divorced copreneurs), but by the growth and scalability potential in the technology industry.

## Conclusion

This section includes a summary of this study, its limitations, and future research possibilities, as well as recommendations for investors assessing copreneurial teams.

#### Contributions and propositions

This study makes a contribution to a nascent type of family business structure: copreneurship. The paper assesses the motives of copreneurs in technology identifying them as either growth-oriented or as primarily conducting business as a way of life with low expectations for further development. Results revealed the characteristics among technology copreneurs, a cohort that until now has been overlooked in the family business research and literature.

Four main themes emerge as a result of this study: copreneurial team composition, roles at work and at home, growth expectations and coping strategies.

In terms of differences and similarities with previous analyses of other family businesses, copreneurial teams in high technology attain higher education levels.

Copreneurial women in start-ups

193

Each partner knows the skills and strengths of the other well, and this awareness allows them to determine their roles more effectively than copreneurial couples with different educational backgrounds. Both have learned to be structured, to segment work and family and to develop mutual trust. Both show a workaholic tendency based on a clearly rational underpinning, and these characteristics are strengths that facilitate more successful collaborations. In numerous cases, the business liaison remains in spite of a breakdown of a sentimental relationship. However, those with growth-orientation show a variety of structures: internationalization or scaling, development of new businesses, massive production and new clients. Grounded theory emerging from the data is the main contribution derived from this study.

The findings of this study show that NHTVs are rarely created as a lifestyle for the founders, but rather as a means of undertaking the challenges associated to the growth of a business. First, our proposition is that copreneurial teams in high technology are growth-oriented. Second, this growth ambition depends on how scalable the business model is. There is a need to explore the validity of a third proposition: women in NHTVs show a higher tendency toward business growth over lifestyle pattern. The returns on investment in capital and labor in this industry are significantly higher than in other traditional industries in which women have been involved because of a fast global demand and the rapid growth of the technology industry.

## Limitations and future research

This study collected information from a small sample of five women copreneurs who had started high-technology businesses and who are or were working with their husbands. Future research is necessary to assess motives and outcomes of copreneurs who rely on external investors to grow and attain business sustainability.

Snowball sampling techniques offer an established method for identifying and contacting isolated or hidden populations (Faugier and Sargeant, 1997), but a limitation of the use of this technique is a selection bias or lack of representativeness. Copreneurial women referred other copreneurial women that belonged to the same entrepreneurship acceleration program (Start-Up Chile) to participate in this study. New studies and evaluations should include women copreneurs from other accelerator programs, for instance Wayra, Endeavour, etc.

## *Implications*

The results support the following recommendations for investors interested in the technology industry in Latin America: investors should support copreneurial teams after a proven period of one to three years of working together, as suggested by Beatriz. This recommendation is aligned with recent evidence that shows that copreneurial identity, commitment, and efficiency builds over time (Danes and Jang, 2013). Copreneurial teams that reach success all share an effective work and family segmentation. Investors should be careful and respect their private lives.

Given the increasing number of women who pursue studies in technology today, their chances of meeting male students with whom to develop romantic relationships significantly increase. Such relationships may, in the long run, may lead to marriage or shared interests in new business ventures. This subject, which has, until now, received little interest in the business literature, grows in importance based on evidence that family

businesses account for a high proportion of business activity in any country and all regions of the world. Moreover, there are indications that this trend will continue to expand at an accelerated rate, creating a critical need to advance knowledge on copreneurship worldwide.

#### **Notes**

- Coaching, consulting and freelancing are not considered technology start-ups because they
  do not have the potential of scaling.
- 2. A "pitch" is a short presentation of the business model (two to three minutes in length).
- 3. For a review of definitions of copreneurs, see Fitzgerald and Muske (2002).

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#### Further reading

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## Appendix

	Specific objectives	Questions		
196	1. Motivation and experience 2. Funding	<ul><li>a. Tell me about your experience as an entrepreneur?</li><li>b. How did the process start? Describe the initial phases of your company</li><li>a. Why (or why not) did you apply to an acceleration program (e.g. Start-Up Chile)?</li></ul>		
		<ul> <li>b. Did you seek other funding sources?</li> <li>c. Did you encounter any obstacles or barriers while searching for funding sources for your start-up?</li> <li>d. What funding sources do you know of?</li> <li>e. Did you apply to other funding sources? Why or why not?</li> <li>f. Funding opportunities specifically for women:</li> </ul>		
		i. Do you know of any funding sources specially designed for women? ii. Have you ever applied? Why or why not?		
	3. Team composition	a. Are you working on your start-up by yourself or with a team? b. Why?		
		<ul><li>c. Did you face any difficulties while working alone or with a team?</li><li>d. Did your original team change over time, or is it the same as the beginning of the project?</li></ul>		
	4. Obstacles	a. During the initial phase of your start-up, what were the main problems you had?		
	5. Networks	<ul><li>b. What did you do to solve them?</li><li>c. Did you ask for any help or support?</li><li>d. Have you ever felt discriminated, excluded or isolated from any network of entrepreneurs (or SUP Chile)?</li></ul>		
	6. Motherhood	<ul><li>a. Do you have children?</li><li>b. If not, how do you visualize the future of your company while raising a family?</li></ul>		
	7. Work-Family Interface	a. How do you see your work-family balance? b. How do you balance work and family, what strategies do you use?		
	8. Copreneurs	a. Are you in a romantic relationship? What does your boyfriend or husband do for a living?		
		<ul><li>b. Why and how did you decide to start a business together?</li><li>c. Did you continue working together in the business after your breakdown?</li></ul>		
		<ul><li>d. What are your future expectations for this business?</li><li>e. Did you confront special challenges raising capital as a copreneurial team?</li><li>f. What advice would you give to new copreneurial couples to increase their chances of success and sustainability?</li></ul>		
Table AI. Questionnaire		<ul><li>g. What are your roles and your partner's roles at work and in your relationship?</li><li>h. How did you define those roles?</li></ul>		

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Copreneurial women in start-ups