Chapter 10 Using Crowdsourcing to Overcome Barriers to Women Entrepreneurship

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Abstract This chapter presents crowdsourcing as a novel way of overcoming barriers facing women entrepreneurs, offering alternatives to conventional solutions. The study analyzes three barriers to women entrepreneurship: access to financing, access to specific management knowledge, and access to information and communication technologies (ICTs). For each barrier, a different form of crowd-sourcing is proposed: crowdfunding, crowd wisdom, and crowdfunded media, respectively. Using these crowdsourcing tools, women entrepreneurs can overcome major difficulties when starting businesses.

Keywords Business angels \cdot Crowfunding \cdot Crowdsourcing \cdot Crowd wisdom \cdot Entrepreneurship \cdot Women entrepreneurs

10.1 Introduction

Crowdsourcing means using the "crowd" to obtain ideas, information, and solutions to succeed in business. Crowdsourcing covers both intellectual and financial resources. The term "crowdfunding" applies to financial resources, whereas crowd wisdom refers to intellectual resources (Fig. 10.1).

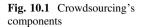
Crowdsourcing is a mechanism that can improve organizations. It can also be used to solve problems and perform simple and complex tasks (Brabham 2008a, b). According to Schuurman et al. (2012), crowdsourcing can be used in two ways: first, as "integrative sourcing without remuneration," which includes free usergenerated content (YouTube, Wikipedia comments, tags, etc.), and second, as

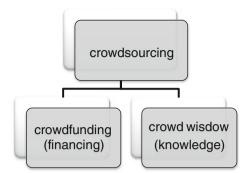
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"selective crowdsourcing without evaluation," which refers to crowdsourcing whereby people with knowledge in a given subject evaluate information on that subject. In crowdsourcing, businesses and the crowd cooperate via information and communication technologies (ICTs) to pursue the common good (Howe 2008).

Crowdfunding, on the other hand, refers to the practice whereby diverse groups collaborate to raise money (Ordanini et al. 2011), creatively solving financial problems through social networks. Crowdfunding's mission consists of using the "crowd" to solve small challenges or raise capital for projects unable to secure financing by traditional means. Crowdfunding uses online platforms to allow initiators and contributors to exchange resources and thereby make their ideas a reality (Gerber et al. 2012), and is often associated with community experiences whereby participants create "benefits for the community" (Belleflamme et al. 2014). Sport, music, video games, and education are some of the main areas where crowdfunding offers solutions. Participants make crowdfunding transactions on online platforms where several crowdfunding actions occur concurrently (Lawton and Marom 2010). Crowdfunding initiatives provide great support to entrepreneurs who lack financial resources—the principal crowdfunding users.

Finally, crowd wisdom arises from the need to spread knowledge through Web sites that allow groups of people with outstanding intelligence to solve problems. Diversity of opinion, participants' geographic decentralization, and the power of the crowd mean that crowd wisdom is becoming more widely used to solve business problems (Surowiecki 2004).

Building on this foundation, this chapter presents three difficulties women entrepreneurs must overcome to succeed in business. We first examine women entrepreneurs' difficulties in accessing financing. We then discuss how crowdfunding can provide women entrepreneurs with the necessary resources to start businesses. Next, we investigate how women entrepreneurs can access greater specific business knowledge through crowd wisdom. Finally, we analyze technological sectors, discussing how these sectors can foster business creation through crowdsourcing.

10.2 Using Crowdsourcing to Overcome Barriers to Women Entrepreneurship

When starting a business, women entrepreneurs may encounter financial, management, and administrative difficulties (Akehurst et al. 2012). Crowdsourcing represents an attractive solution to overcome all three barriers.

10.2.1 Access to Financing

The scarcity of early-stage capital creates a significant barrier to entrepreneurship (Cosh et al. 2009). Numerous studies have addressed women entrepreneurs' disadvantage with respect to men regarding access to financial resources. Coleman (2000) reported that women encounter greater difficulties in accessing financing and pay higher interest rates than men. Relations between women entrepreneurs and financial institutions are subject to widespread stereotypes and discrimination (Carter and Storey 1994).

The scarcer resources invested by women when starting a business may indicate greater problems and obstacles in obtaining financial resources necessary to undertake a business venture. Thus, numerous studies (Orhan and Scott 2001; Verheul and Thurik 2001) have concluded that women encounter greater difficulties in accessing the necessary early-stage capital and that financial institutions may doubt women entrepreneurs' credibility. After analyzing findings from numerous empirical studies, authors have concluded that women perceive that banks discriminate against them and that barriers to accessing early-stage capital are greater for women than for men (Stoner et al. 1990; Brush 1992; Akehurst et al. 2012).

Entrepreneurs must identify which resources they lack and which they already possess. A shortage of early-stage capital can negatively affect a business in the long term. Similarly, less early-stage capital affects entrepreneurs' chances of securing bank financing (Storey 1994). Gundry and Welsch (2001) showed that women often start and run their businesses with less capital and scarcer financial resources. This lack of financial resources affects women entrepreneurs' future performance.

Without bank financing, women business owners must seek more costly forms of raising capital (Hayes 2000), which is perhaps why women perceive that traditional financing instruments fail to suit women-led businesses. This need to seek more costly forms of raising capital could also explain why some authors have claimed women entrepreneurs prefer to finance businesses with their own personal savings or family loans (Petersen and Rajan 1994). This preference leads to lower initial investment by women. Women business owners seem to lack awareness of available financing options, which may prevent women from seeking alternative financing sources such as crowdfunding.

10.2.1.1 Alternative: Crowdfunding

Crowdfunding helps women entrepreneurs raise capital to crystallize new ideas, especially when resources are scarce (Greenberg and Gerber 2012; Lambert and Schwienbacher 2010). Crowdfunding projects vary greatly, from small artistic projects to large entrepreneurial projects hoping to raise millions of dollars in seed capital as an alternative to traditional financing (Schwienbacher and Larralde 2010).

Crowdfunding platforms can be open source, whereby resources belong to the community and can be exploited individually (with no restriction on who may use them), or generically, whereby the entity seeking crowdfunding owns and exploits the resources. Crowdfunding begins with an open call, normally on an online platform, requesting donations in exchange for future products or some reward for supporting the initiative (Belleflamme et al. 2014). These platforms are currently having enormous effects (Greenberget al. 2013).

Through crowdfunding, project initiators aim to raise capital via online social networks. Instead of raising capital from a small group of sophisticated investors, crowdfunding projects obtain money from large audiences (the "crowd"), where many individuals contribute a small sum (Kuppuswamy and Bayus 2013; Mollick 2014). Therefore, when raising financial resources to start a business, crowdfunding may offer an attractive alternative for women who, as previously discussed, encounter serious problems in accessing traditional financing. If the crowdfunding project meets its goals, the money passes to the entrepreneur. Although the entrepreneur has no legal obligation to carry out the project, in practice, all projects are carried out (Mollick 2013).

Thus, given the difficulties faced by new businesses in attracting financing from "business angels," banks, and venture capitalists, entrepreneurs in general, and women entrepreneurs particularly, can take advantage of these large online communities of consumers/investors (Cumming 2012). Furthermore, because it is often anonymous, crowdfunding benefits women entrepreneurs, who need not reveal their sex when presenting a project.

Women entrepreneurs' family economy is important because women entrepreneurs often rely on seed capital from family and friends to start new business projects (Cumming and Johan 2009). Since entrepreneurial projects often rely on family and friends for funding, crowdfunding can favor women especially (Parker 2009). The motives that drive women to start businesses are primarily empathy, sympathy, happiness, and identification with the entrepreneurial project. All these factors directly affect the quantity donated (Gerber et al. 2012).

Crowdfunding has been successful because it eliminates economic and geographic barriers, and because virtual platforms facilitate donations from contributors (Schwienbacher and Larralde 2010). Furthermore, the current financial crisis has forced entrepreneurs to seek alternatives to finance their projects. Currently, policymakers are working toward a regulatory framework that will mitigate serious fraud risk and alleviate restrictions. To conclude, although women entrepreneurs have increased their access to financial resources, accessing financing remains a barrier to women entrepreneurship. Crowdfunding may thereby help women create and develop businesses.

10.2.2 Knowledge Transfer

Knowledge transfer has undergone considerable changes in two areas. Once conceived as a one-way (offer/demand) relationship, knowledge transfer is now understood as an interactive two-way relationship in which the transfer agent and recipient both actively participate. The "long tail" thesis posits that users can select an increasing amount of information, contents, knowledge, products, and services in numerous ways besides traditional communication media. This range of options encourages consumer choice (Anderson 2006). Furthermore, knowledge transfer is no longer limited to engineering or medicine, but now also includes other knowledge areas such as social sciences and humanities (D'Este et al. 2014).

On average, women entrepreneurs boast fewer years' work experience than men, and the kind of experience differs. Less work experience and specific training in business-related areas prevents women from developing their own skills to drive business growth or obtain financial resources to start a business. Hence, differences in work experience affect business size.

According to the "long tail" theory, knowledge transfer lets society access information more easily. Nevertheless, women entrepreneurs still struggle to access the training they need to acquire skills to create and develop businesses. Crowd wisdom, a new crowdsourcing form, offers a plausible alternative to reduce these problems.

10.2.2.1 Alternative: Crowd Wisdom

In recent years, women have enjoyed greater training in the management skills necessary to start a business and participate more in a historically male-dominated activity. Nevertheless, opportunities are unequal because the culture in many countries impedes women's professional development. We therefore propose crowd wisdom as an alternative for women to access the necessary knowledge to create businesses and develop the skills required for entrepreneurship. Outsourcing innovation combined with "the knowledge of the crowd" creates crowd wisdom, a term coined by Howe (2008).

Similarly, the concept of collective intelligence (i.e., intelligent decisions by individuals who combine their knowledge) has arisen. Through social interaction, the crowd shares, corrects, opens, processes, enriches, and evaluates intellectual knowledge (Lévy 1994).

Crowd wisdom arises from the need for groups of people with outstanding knowledge to spread their knowledge through virtual platforms and solve problems (Surowiecki 2004). Therefore, this specific business knowledge transfer could prove useful for women entrepreneurs who lack the necessary intellectual resources. Thus, these relations could contribute to two-way knowledge flows between actors with complementary competencies. Specific contributions from each user could help women entrepreneurs achieve innovative results. In addition, crowd wisdom could help form stable social networks and generate relationships of trust between actors. Such trust would create favorable conditions so that people with complementary knowledge could share sensitive information and learn to solve complex problems.

Knowledge transfer through media such as the Internet contributes to resolving business problems on an international level. Web sites increase diversity of opinion and, consequently, diverse solutions to the same problem, thanks to independence and decentralization of opinions (Goldfarb and Tucker 2010). Thus, in crowd wisdom, open innovation with users transcends merely identifying user needs—an approach associated with classic research—and implies developing solutions to generic market needs.

Web sites encourage innovation through new technologies (Terranova 2004), while creators of interactive platforms and projects learn new ways of addressing new knowledge forms (Gerber et al. 2012). Crowd wisdom lets participants learn through responses to calls for financing, Web analysis, qualitative feedback, and tutorials about how to seek financing, fill orders, and so forth (Terranova 2004). People thus learn through participation and obtain information through regular, public interaction (Kolonder et al. 1998). Thanks to the Internet, people with outstanding knowledge (e.g., university researchers) can help businesses in general, and women-led businesses in particular, by providing advice on optimally managing resources and maximizing present and future financial profits.

In many cases, although women entrepreneurs obtain the financing they need, without the necessary knowledge, their businesses may fail. Therefore, crowd wisdom offers an alternative to provide women with the knowledge they need to succeed in business.

10.2.3 Access to Technological Sectors

Women enjoy greater managerial presence in certain economic sectors (Blum et al. 1994; Huarng et al. 2012). Nevertheless, numerous authors (Brush 1990; Romero 1990; ENSR 1996; Akehurst et al. 2012) have concluded that women-led businesses tend to proliferate in the services sector, especially in activities where women have traditionally played a prominent role: retail, hospitality, personal assistance services, and education. Scholars have proposed several reasons to explain women's business orientation toward services. For instance, service and retail businesses require low up-front investment and less technical training. These requirements help women entrepreneurs nullify their disadvantage with respect to men regarding obtaining financial resources and specific business skills (Blake 2006).

In contrast, women entrepreneurs are underrepresented in sectors such as manufacturing and ICTs (Du Rietz and Henrekson 2000). Accordingly, some research (Loscocco and Robinson 1991; Anna et al. 1999) has shown that women are less likely to own businesses in technology-intensive sectors. Yet, ICTs supply knowledge to innovative societies and enhance people's knowledge and creativity. Therefore, women entrepreneurs' access to the ICT sector should be fostered, not only so that women can work in all sectors, but also because access to ICTs can help businesses in other sectors develop.

Digital platforms can help reduce grazes stemming from geographic distances between markets. In addition, ICTs have increased access to the global market, accelerated information transmission, and reduced costs. Therefore, as previously mentioned, ICTs facilitate women entrepreneurship not only in the ICT sector, but also in other sectors (Haliburton et al. 1998).

10.2.3.1 Alternative: Crowdfunded Media

Through crowdfunding, particularly crowdfunded media, women entrepreneurs can build a basis to access the ICT sector and use this technology to develop their businesses.

Crowdfunded media link resources in a novel way (Sanfiel 2008) so that users can access technological knowledge. Therefore, these media give women entrepreneurs access to the ICT knowledge necessary to develop their businesses.

Through global digital platforms, ICTs drive entrepreneurs' knowledge and creativity. By lowering the costs of access to services, knowledge, and information, ICTs have contributed to reducing transaction costs in developed countries. Women entrepreneurs can develop capabilities and skills by using ICTs (Huyer and Sikoska 2003). The potential of crowdsourcing, driven by ICTs, encourages businesses to create interdependencies and synergies and thereby operate with greater ease in global markets.

The idea of combining traditional business skills with business activity in innovation, technology, and information constitutes a relatively new concept (Sahlfeld 2007). ICT use is important for business competitiveness. Thanks to the Internet and its applications, new and quicker ways of communicating and transmitting information have partially substituted more conventional communication methods (Sahlfeld 2007). Nevertheless, as already shown, women lack access to this new technology. They lack both the necessary resources for external access and the necessary technical training.

New platforms with highly diverse contents (e.g., blogs and social networks) have gradually been emerging. These contents often give individuals the knowledge they need to correctly implement ICTs in entrepreneurship. In short, ICTs help women develop their potential and realize their business projects. With a global reach, ICTs can increase the chances that women access the help they need. In addition, ICTs can help women learn to manage and develop their businesses.

10.3 Conclusions

This chapter shows the importance of the "crowd" for women to achieve not only financing but also the necessary knowledge to start and develop businesses. Each section begins by presenting a different barrier to women entrepreneurship and then introduces an alternative solution: crowdsourcing.

Thus, by offering women equal access to financing, knowledge, and ICTs, global virtual platforms, the basis of crowdsourcing, can help create gender equality in business creation.

By giving women entrepreneurs greater access to the resources necessary to create businesses, these online platforms mean that initiatives can have global repercussions. First, women entrepreneurs can use crowdfunding to access basic financial resources for entrepreneurial projects. Second, crowd wisdom grants women entrepreneurs access to specific entrepreneurial knowledge to create and develop their businesses. Third, through crowd funded media, women entrepreneurs can access ICTs, so that, in addition to operating in this historically maledominated sector, women can also use ICTs to develop their businesses.

Empirically analyzing crowdsourcing's effect in Spain would enhance this study. In addition, further research should explore different branches of crowdsourcing such as crowsdvertising, which allows entrepreneurs to market their ideas through advertising financed by public participation.

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