Financing Organic Farming through Crowdfunding: Is the Wisdom of Crowds More Supportive for Mixed Gender Teams?

Isidora LJUMOVIĆ* – Vladan PAVLOVIĆ** – Goranka KNEŽEVIĆ***

Abstract

Organic production is on the upswing, owing to consumer preferences for safer products manufactured with environmentally friendly methods. It is frequently promoted to achieve economic development, poverty alleviation, and female empowerment. Crowdfunding is considered an ideal mechanism for mobilizing financial resources for people with limited access to traditional sources, such as women. This paper aims to analyze the gender gap in organic farming crowdfunding and estimate which characteristics foster the likelihood of crowdfunding success in organic production campaigns. We used a sample of crowdfunding campaigns from the Kickstarter platform and employed a binary logistic regression model to investigate the main research question. Our findings show that the crowd primarily supports gender-mixed teams. We also found that having more information about the campaign and project quality, a more realistic goal, and a shorter campaign duration increases the likelihood of succeeding. This paper contributes to the growing literature and policy initiatives to promote and develop gender equality in crowdfunding.

Keywords: crowdfunding, organic farming, gender gaps, entrepreneurial finance

JEL Classification: Q41, F50, C32

DOI: https://doi.org/10.31577/ekoncas.2023.08-09.02

Article History: Received: August 2022 Accepted: December 2023
Introduction

From a gender perspective, entrepreneurship is not only an academic topic of growing interest but also an important policy issue across many nations (Link, 2017). In addition to addressing gender inequalities, promoting and supporting women’s entrepreneurial activity can significantly impact economic and social development globally, especially in developing countries (Cicchiello et al., 2021). Women’s economic empowerment is more than an economic issue because it leads to societal adjustments in power relations (Ranabahu and Tanimu, 2022).

Women’s empowerment in organic farming has recently been the subject of numerous studies (Özsayin and Korkmaz, 2021). While organic farming is considered a way for economic development and poverty reduction in less developed countries (Qiao et al., 2016), somewhere supported by women’s empowering projects (Altenbuchner et al., 2017), in developed countries, contemporary female organic farmers are seen as idealized heroines (Larmer, 2016).

Crowdfunding is a technology platform that allows a group of people to fund a new business endeavor collaboratively (Ma and Liu, 2017). It democratizes access to seed funding for entrepreneurs and small businesses by enabling them to pitch directly to the masses (Anglin et al., 2022). It also makes younger people more likely to get funds (Cumming et al., 2021). Although prosocial crowdfunding was created as a financial instrument to support vulnerable populations, such as rural and female populations, new research suggests that the focus of prosocial crowdfunding is shifting away from that goal (Figueroa-Armijos and Berns, 2022). As Alva et al. (2023) pointed out, the COVID-19 pandemic’s unprecedented global consequences have disproportionately impacted vulnerable populations, such as women entrepreneurs, putting them in an even more exposed position.

Crowdfunding can be a helpful way to fund organic farming, as it is environmentally friendly, and backers support environmentally conscious agribusinesses (Ljumović et al., 2021). Giakoumelou et al. (2023) found that the number of images, comments, updates and the readability of the project description positively impact the success rate of vegan crowdfunding campaigns, while the length of the description of the project has a negative effect. On the other hand, the number of videos does not affect the success of vegan crowdfunding campaigns.

Crowdfunding is considered a potentially crucial innovative mechanism for mobilizing financial resources in areas that often struggle to receive funding from traditional sources, such as agriculture (Filimonova et al., 2019; Kocollari et al., 2022). In addition, crowdfunding is seen as a powerful mechanism to funding vulnerable populations, such as women, especially low-educated women in rural areas. Cillo et al. (2019) pointed out that crowdfunding-platform-based open
innovation strategies are a new trend in accelerating the diffusion of agri-food business innovation strategies.

However, despite the rapid development of crowdfunding and the growing research on crowdsourcing success (Xu et al., 2022), most campaigns fail to meet their funding goals (Cowden and Young, 2020; Yuan et al., 2021; Anglin et al., 2022; Šimić Šarić, 2021). Moreover, the practical use of crowdfunding remains limited (Chandna, 2022). We still lack an understanding of the factors determining the success of crowdsourcing campaigns (Xu et al., 2022) or how crowdfunding platforms gain user trust (Ferreira et al., 2022).

As recently noted by Yuan et al. (2021), promoting the opportunity for fundraising success is a hot topic. As a result, we explore the influence of gender on the likelihood of obtaining funding through crowdfunding for organic farming. Our paper contributes to the literature in several ways. In the study, we included the analysis of mixed gender team. Research on this kind of sample is still in its early stages. Additionally, to our findings, there is no crowdfunding study on a sample of organic producers. This subgroup has gained significant popularity in recent years, and on the other hand, some research shows that backers on crowdfunding platforms are more inclined to ideas with elements of sustainability. Bearing in mind that agriculture is a traditional activity, our motive was to analyze whether mixed-gender teams are more successful in fundraising than males or females.

1. Literature Review

Yunus (2004) stated that lending to women brings greater benefits to the family than lending to men and therefore strongly supported lending to women, disrupting the far more common practice, by traditional banks, of lending mostly to men. Cicchiello et al. (2021, p. 932) recently stated that „gender discrimination in traditional financial markets makes women entrepreneurs seek alternative financing channels such as equity crowdfunding.“ Namely, several studies show that women are less likely to obtain bank financing and attract private equity and venture capital funding (Becker-Blease and Sohl, 2007). Scholars often explain this due to pervasive bias against women entrepreneurs, most likely due to gender stereotypes (Balachandra et al., 2019) and male dominance among investors. (Cicchiello et al., 2021) This bias is also confirmed on equity crowdfunding platforms, where it is found that even female investors are more likely to invest in projects in which the proportion of male investors is higher (Mohammadi and Shafi, 2018).

However, gender stereotypes should be more present in crowdfunding than in other financial markets. „When there is limited access to information, individuals are more prone to rely on underlying stereotypes (Tosi and Einbender, 1985), and
crowdfunding markets undoubtedly represent this situation (Battaglia et al., 2021). Yet, as Wesemann and Wincent (2021) recently stated, crowdfunding challenges many causes of gender discrimination. Little is known about how it affects changes in female entrepreneurs’ optimal funding strategies. Barasinska and Schäfer (2014) stated that “female discrimination seems to be eased by the ‘wisdom of the lending crowd,’” while Bapna and Ganco’s (2021) research confirms that the gender gaps observed in traditional equity funding do not apply to equity crowdfunding. Serwaah (2022) points to a general trend where female participation has not achieved its full potential; it is more significant than in other channels while enjoying higher chances of success for female fundraisers. Figueroa-Armijos and Berns (2022) also advocated that preliminary evidence suggests crowdfunding increasingly lessens the gender bias between crowd funders and entrepreneurs, particularly in a prosocial context.

Namely, in research conducted to examine the role that vulnerability plays in the likelihood of obtaining funds, Figueroa-Armijos and Berns (2022) discovered that when an entrepreneur is female or lives in a rural area, both of which are vital characteristics of individual vulnerability, the probability of being fully funded increases. Johnson et al. (2018) explained that wherein a ‘crowd’ of amateur investors make relatively small investments in new companies, the typical stereotype perceptions in the form of trustworthiness judgments constitute an advantage for women, i.e., investors’ willingness to invest in early-stage women-led ventures increases. Exploring reward-based crowdfunding, Gafni et al. (2021) found that women have higher success rates than men. Horvat and Papamarkou (2017) confirm the trend on some rewards-based crowdfunding platforms that women entrepreneurs enjoy higher success rates in fundraising. They also noticed that female investors tend to choose campaigns with lower success rates (Horvat and Papamarkou, 2017). As Wesemann and Wincent (2021) noticed, being a woman might be an advantage in crowdfunding. Alva et al. (2023) highlight that crowdfunding represents a financial resource at hand for both pre-existing female entrepreneurs and new female entrepreneurs. Seigner et al. (2022) recently suggested that in reward-based crowdfunding, women might benefit from violating gender expectations when backers view these violations as either positive or ambiguous due to their findings that women are perceived as more able when launching campaigns in male-stereotyped categories.

Surprisingly, the advantage of being a woman is confirmed not only on prosocial and rewards-based crowdfunding platforms but also in the equity crowdfunding market, attracting investors motivated by financial return rather than altruistic and charitable backers (Ullah and Zhou, 2020). The interest in crowdfunding has shown strong growth in recent years, particularly for the brokerage for equity-like
forms of financing to startups through Internet-based crowdfunding platforms. (Reichenbach and Walther, 2021) Still, in the case of equity crowdfunding, gender aspects of the signaling effect have received little attention (Cicchiello et al., 2021, p. 933).

On a population of Latin America equity crowdfunding campaigns, Cicchiello et al. (2021) found that the involvement of at least one woman on the board of firms seeking equity financing increases campaign success rates in terms of the investors’ average pledge, the target amount reached at the end of the campaign and the percentage raised at the end of the campaign exceeding the initial fundraising goal. Therefore, Cicchiello et al. (2021, p. 930) suggested that equity crowdfunding campaigns should be based on gender equality on the firms’ boards. Battaglia et al. (2021) found that companies founded by women are more successful in receiving financial backing, involving more investors, and achieving their fundraising goals easier than their male counterparts. The female advantage is more substantial in countries where women are disadvantaged and far from equal opportunities. Zhao et al. (2021) found that female entrepreneurs are more likely to be crowdfunded than their male counterparts, leading investors to increase the financial advantage of female entrepreneurs in the crowdfunding market. Still, this advantage is weakened in later-development-stage ventures.

Various theories have been offered on why being a woman may be advantageous in crowdfunding. Figueroa-Armijos and Berns (2022) argued that altruistic individuals around the world have directly helped the unbanked population through prosocial crowdfunding that responds to a social and ethical lens, while Bezalel et al. (2021) pointed out that participation in philanthropic and altruistic activities such as crowdfunding can, to some extent, be driven by emotional motivations that underlie the satisfaction of the basic psychological need for purpose. Zhao et al. (2017, p. 371) supported the thesis that „in the crowdfunding context, people exchange not only money and products, but also feelings, sympathy, and encouragement.” People like to support vulnerable populations, whereas being female and in a rural area is typically considered vulnerable. Besides the limited funding accessibility, poverty is mainly concentrated in rural areas for numerous reasons (Figueroa-Armijos and Berns, 2022).

Bezalel et al. (2021) additionally argue that women are more „Kantians” than men in their attitude towards decisions involving intrinsic motivation, primarily those involving altruistic behavior. Groza et al. (2020) findings confirm that compared with male backers, female backers support internal and external social ties to a greater extent when deciding on what projects to support. Therefore Groza et al. (2020) stated that emphasizing the female gender as founders may encourage investors to be supportive.
Certain research point to activist homophily (Greenberg and Mollick, 2017), stating that female backers strongly support female-led projects over male-led ones (Battaglia et al., 2021). Hellman et al. (2021) argue that assortative matching (where investors prefer to invest in their own gender) can explain some but not all of the female funding gap. Cicchiello and Kazemikhasragh (2022) also suggest that gender bias influences the probability of an investor financing a firm, i.e., investors prefer firms led by entrepreneurs who are similar to them in terms of gender. Research by Groza et al. (2020) confirms that female backers support fellow creators more than men. However, women made the minority of backers and entrepreneurs, and they are concentrated in stereotyped sectors (Gafni et al., 2021). Therefore, Wesemann and Wincent (2021) argue that not only do women support other women because they remind them of themselves and the hurdles they have faced (Greenberg and Mollick, 2017), but men also support women because they are interested in justice and want to level the playing field. In conclusion, female crowdfunding entrepreneurs may profit from emphasizing their gender (Wesemann and Wincent, 2021).

Another explanation is that society associates trustworthiness with women due to typical social roles (Cicchiello et al., 2021, p. 934), while trust is crucial for engaging potential supporters and campaign organizers (Ferreira et al., 2022). Those explanations, on the other hand, could explain the female advantage in prosocial crowdfunding and reward-based crowdfunding, in which people donate to campaigns for little or no obvious tangible rewards (Bezalel et al., 2021), and the vast majority of rewards in organic production crowdfunding campaigns are like this.

In equity-based crowdfunding, altruistic motives are less present. Besides the homophily effect, Cicchiello et al. (2021, p. 934) further explain that investors may perceive male entrepreneurs who use crowdfunding as less competent than those who choose traditional funding sources (i.e., venture capital or angel investment). Cicchiello et al. (2021, p. 934) argue that gender diversity may also signal multiple perspectives that can spark creativity and innovation and help the company spot and seize new opportunities. The literature on board diversity and corporate financial performance supports the hypothesis that having women on the board improves firms’ financial performance due to different perspectives and approaches arising from psychological differences between men and women (Cicchiello et al., 2021; Rodriguez-Fernández et al., 2020; Pavlović et al., 2018; Arun et al., 2015). Belief that women improve the decision-making process in the corporate world is widespread in the Western hemisphere. Apart from combating inequalities, the newly adopted EU gender directive was strongly supported by economic arguments that stem from the notion of the advantage of gender-balanced boards (Pavlović et al., 2022). Cueva and Rustichini (2015) find that mixed-gender groups have higher
average cognitive skills, while Yao et al. (2023) state that mixed-gender teams generate more accurate forecasts and have less optimism bias. However, the mixed leadership effect in the corporate world is still inconclusive.

Unlike boards of directors, professional investors, and equity crowdfunding entrepreneurs, backers and campaign creators who engage in reward-based crowdfunding, lack or have limited business or investment experience, particularly in the agriculture industry. But, crowdfunding backers also typically have limited investment experience and lack the ability or inclination to engage in significant due diligence (Seigner et al., 2022, p. 383). That is, neither campaign creators nor campaign backers in reward-based crowdfunding are experts in business and investment activities.

However, not all studies confirm women’s advantage in crowdfunding. Malaga et al. (2018) found that gender did not affect the likelihood of successful fundraising under Title II equity crowdfunding. On a population of US equity crowdfunding campaigns, Geiger and Oranburg (2018) found that campaigns received significantly less funding when the primary signatory was female, particularly as the target amount increased. Still exploring equity crowdfunding, Hellman et al. (2021) find that both all-female and mixed-gender teams are equally likely to reach their campaigns goal as their all-male counterparts. However, female teams ask for less money, have the same probability of campaign success, and end up raising less money, while mixed-gender teams raise more funding (Hellman et al., 2021).

In line with Yao et al. (2023) claiming that women contribute to generating more accurate forecasts and less optimism bias, Hellman et al. (2021) argue that female teams set lower fundraising goals.

Contrary to research focused on women’s or men’s advantages in crowdfunding, there is a lack of studies on the potential advantages of mixed-gender teams. Although certain studies on family business crowdfunding exist, there hasn’t been much research into the advantages of families over individuals or single-sex groups in fundraising.

2. Material and Methods

2.1. Hypotheses Development

Farming is often a family business because the entry into business is most frequently through family inheritance of private property, either owned or rented (Zagata and Sutherland, 2015). With this in mind, we have developed the following hypothesis to explore how gender, including mixed-gender teams, suggesting a family business, affects the success of the project.
Hypothesis 1 (H1). Mixed-gender teams (more than one campaign creator) have higher success odds than individuals in organic farming campaigns.

To explore how campaign characteristics influence the success of the project, we have posted the following two hypotheses:

Hypothesis 2 (H2a). The campaign quality (measured by the number of pictures and videos posted, number of rewards, and number of words in the project’s short description) is positively related to campaign success.

Hypothesis 2 (H2b). The information on the campaign (measured by the number of comments and updates) is positively related to campaign success.

2.2. Sample

We collected data from Kickstarter, one of the largest and most popular online crowdfunding websites. Moreover, Kickstarter is considered one of the most successful platforms (Ferreira et al., 2022) and, therefore, one of the most prominent (Duan et al., 2020) and most influential global platforms (Mollick, 2014). In March 2021, we used a custom-made scraper robot that crawls projects from the Kickstarter webpage (kickstarter.com, last entry March 24th, 2021) and collects data for each campaign. We have gathered over 250,000 campaigns in all categories from Kickstarter, covering the period from 2014 to 2020. Campaign creators can categorize their projects into numerous categories, including Food. Farms are one of several subcategories of the food category. Our focus was on organic farms in the subcategory Farms; hence, we applied text analysis, searching for the predetermined words in the title of the campaign (a similar approach could be found in Calic and Mosakowski, 2016; Cumming et al., 2017; Vismara, 2019). We were looking for campaigns with words such as organic and permaculture. Before forming the final sample, we imposed several limitations. First, we excluded suspended and canceled projects because we couldn’t predict whether they would succeed or fail. Next, we did not include projects with extremely high values because they are outliers and may have features that differ from the majority of projects (Liang et al., 2020). We had excluded three projects above the 99 percentile of the distribution, which was in the case of our sample with a value of over USD 750,000. High-amount projects are not in the spirit of crowdsourcing and are better suited to other more established types of fundraising, such as venture capitalists, angel investors, and institutional investors, despite the platform’s free goal setting. Contrary to recent academic literature (Mollick, 2014; Greenberg and Mollick, 2015; Cumming et al., 2017), we did not use a lower threshold because projects in the subcategory Farms have lower campaign goals than campaigns from other categories, such as technology or film. This way, we managed to identify 263 campaigns related to organic farming.
We extracted additional features from the Kickstarter website on the campaign and its creator. We derived multiple variables of the project characteristic from the Kickstarter, project goal, duration of the funding period, number of backers, campaigns tags, project quality, measured by the number of pictures and videos posted, and complexity, measured by the number of reward level, information (updates and comments) and the length of the project short description. In addition to these variables, we took several steps to code the genders of the project creators. Two researchers checked the names of the project creators, together with profile pictures and videos posted within the campaign. Most project creators use real names and have photos in the profile section. We used search engines Google Search and social networks (Facebook, LinkedIn) to check creators’ gender in case of missing data. We coded data on gender with 1 if the campaign was created by males(s), with 2 if it was created by a female(s), and 3 if the mixed team (both males and females) initiated the campaign. Data on founder gender enable us to do metrics related to the gender of each project’s founder(s).

The mixed teams mostly comprised of families living and working together because our research is focused on farming. On the other hand, the family connection was not always clearly visible. Only a few teams are made up of people of the same gender. Because their number is negligible, we treat these groups as if they were one person and categorize them as male or female based on their gender.

2.3. Variables

As the Kickstarter platform has an „all or nothing policy,” implying that only campaigns that achieve their goal will be funded, our dependent variable reflects whether the Kickstarter campaign was successfully funded or not. If the campaign raised the amount set as a goal, it receives the value 1 and is treated as successful otherwise, it gets 0, and we treat it as failed. Thus, our dependent variable is binary, defined as

\[ y = \begin{cases} 
1, & \text{if } \sum a_i / G \geq 1 \\
0, & \text{otherwise}
\end{cases} \]

We used independent variables related to gender and characteristic of the campaign. Gender is a categorical variable taking the value 1 if the campaign creator is a female, 2 for male, and 3 for a gender-mixed team. Female entrepreneurs are likely to have a higher success rate than male entrepreneurs, but we expect that teams will outperform individuals, both male and female (Beier and Wagner, 2014; Muller et al., 2016; Malmström et al., 2017; Horvat and Papamarkou, 2017; Vismara et al., 2017; Cha, 2017; Ewens and Townsend, 2020; Ullah and Zhou, 2020; Elitzur and Solodoha, 2021; Gafni et al., 2021; Prokop and Wang, 2022).
The campaign characteristics can be grouped around quality (number of pictures and videos posted, number of rewards, and number of words in the project’s short description) and information (number of comments and updates). We anticipate that a higher number of pictures, reward levels, and the number of words in the project’s short description, as well as a video posted, will improve the campaign’s quality and thus its chances of success (Mollick, 2014; Hörisch, 2015; Calic and Mosakowski, 2016; Cumming et al., 2017; Liang et al., 2020; Ullah and Zhou, 2020; Duan et al., 2020; Prokop and Wang, 2022). Regular updates show creator responsiveness and a positive attitude toward the crowd (Block et al., 2018; Lagazio and Querci, 2018; Liang et al., 2020; Ullah and Zhou, 2020). Thus, we expect a positive relationship between the number of updates and success. On the other hand, the number of comments shows whether the campaign caught the eye of backers and created word-of-mouth (Kromidha and Robson, 2016; Bi et al., 2017; Liang et al., 2020; Ullah and Zhou, 2020).

Control variables include the funding target amount (we used the logarithm form) and project duration to eliminate the outliers. Realistically established goals are critical, and the amount of money requested is adversely related to success, implying that the smaller the goal, the greater the possibility of success (Vismara et al., 2017; Ullah and Zhou, 2020; Duan et al., 2020; Gafni et al., 2021; Prokop and Wang, 2022). Although it may appear evident that the longer the campaign lasts, the better the chances of success, the length of campaign duration is likely to be adversely related to the campaign’s success, i.e., the shorter the campaign, the better the chances of success (Mollick, 2014; Hörisch, 2015; Cumming et al., 2017; Butticè et al., 2019; Liang et al., 2020; Ullah and Zhou, 2020; Duan et al., 2020). We also controlled for the favorite status of the campaigns. Kickstarter team members have the option to distinguish projects as favorites while active. That directly affects the campaign’s quality assessment of investors (Wessel et al., 2016). If the Kickstarter team marks the campaign as a favorite, we expect the chances of being successfully funded will increase. We eliminated the number of backers from the list of variables because of a relatively high level of correlation to several other variables. Table 1 summarizes the definitions of variables used in the research and their descriptive statistics.

Table 2 provides the Pearson correlation coefficient matrix. In our sample of organic farms, 19.8 percent, or 51 of all projects, are funded successfully. Organic farming-related campaigns have a lower chance of success than projects in the category of Food and other Kickstarter campaigns. As of 25 December 2021, the average success rate in the category „Food” was 25.84 percent, and in all categories on the platform is 39.39 percent (source: Kickstarter official statistic). The correlated relationship between majorities of variables is not high. Except for the
variable backers, all correlation coefficients are between –0.335 and 0.573. In several cases, the correlation coefficients are above 0.6. For this reason, we excluded the variable backers from further analysis.

### Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>Dummy equals 1 if the campaign goal was successful or 0 otherwise</td>
<td>0.198</td>
</tr>
<tr>
<td>Gender</td>
<td>Dummy equals to 1; if the campaign creator is a female, 0; for males and -1 for a mixed-gender team</td>
<td>2.202</td>
</tr>
<tr>
<td>Pictures</td>
<td>Number of pictures posted in the campaign</td>
<td>4.198</td>
</tr>
<tr>
<td>Videos</td>
<td>Dummy equals 1 if the creator posted the campaign video otherwise</td>
<td>0.504</td>
</tr>
<tr>
<td>Rewards</td>
<td>Number of rewards posted in the campaign</td>
<td>5.841</td>
</tr>
<tr>
<td>Blurb_length</td>
<td>Number of letters counted in the project’s short description</td>
<td>116.109</td>
</tr>
<tr>
<td>Comments</td>
<td>Number of comments posted during the campaign</td>
<td>1.155</td>
</tr>
<tr>
<td>Updates</td>
<td>Number of updates posted during the campaign</td>
<td>2.054</td>
</tr>
<tr>
<td>Log_target</td>
<td>The logarithm of the target capital</td>
<td>9.515</td>
</tr>
<tr>
<td>Duration</td>
<td>The time length of the campaign</td>
<td>36.297</td>
</tr>
<tr>
<td>Staff-pick</td>
<td>Indicating whether Kickstarter team members designated a campaign as a “favorite while it was active”</td>
<td>0.0891</td>
</tr>
</tbody>
</table>

Source: Own processing and calculation.

Descriptive statistics for each gender group reveal substantial variances (Table 3). Projects posted by teams, on average, have higher quality. Teams posted 4.989 pictures on average, compared to 4.317 for females and 3.453 for males. They also offer more rewards (5.011, vs. 5.146 – for females and 3.983 – for males), and their project description is wordier (118.309 words contrary to 117.829 for females and 113.641). Teams’ campaigns, on the other hand, have fewer videos (1.394) than men’s (1.570) and women’s (1.463) campaigns. Teams put forth more effort related to the concept of campaign information. Compared to men and women, they receive an average of 1.479 comments and 3.032 updates every campaign (0.797 and 1.211 comments and updates from campaigns posted by men and 1.390 and 2.195 for women). Teams are less ambitious than men (USD 161,925.326) but more ambitious than women (USD 37,279.825) when it comes to setting goals (the average team goal amount is USD 45,145.713). Their project duration (on average 35.768 days) is less than that of men creators (37.839) but more than that of women (37.839). Higher campaign quality and more detailed information on it are the most probable cause that the Kickstarter crew chooses campaigns from teams most often (0.160 for teams, 0.031 for males, and 0.098 for females) and that have the highest number of backers (42.894, teams, 11.430 males, 20.146 females). Finally, this is likely to have resulted in more money being pledged (on average, teams pledged USD 5,788.480, with males pledging USD 985.182 and females pledging USD 1,838.050) and more successful campaigns (success rate for teams is 35.1 percent, for males 28.1 percent and 17.1 percent for females).
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>**</td>
<td></td>
<td></td>
<td>**</td>
<td></td>
<td></td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0.003</td>
<td>0.007</td>
<td>0.008</td>
<td>2.122</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>2</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>3</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>4</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>5</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>6</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>7</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>8</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>9</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>10</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>11</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>12</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
</tbody>
</table>

**Note:** * p < 0.05. ** p < 0.01. Two-tailed tests.

**Source:** Own calculations.
Table 3
Descriptive Statistic of Subsamples

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>SD</th>
<th>Female</th>
<th>SD</th>
<th>Mixed Teams</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video</td>
<td>1.570</td>
<td>0.497</td>
<td>1.463</td>
<td>0.505</td>
<td>1.394</td>
<td>0.491</td>
</tr>
<tr>
<td>Rewards</td>
<td>5.339</td>
<td>3.983</td>
<td>5.146</td>
<td>4.667</td>
<td>6.830</td>
<td>5.011</td>
</tr>
<tr>
<td>Comments</td>
<td>0.797</td>
<td>2.852</td>
<td>1.390</td>
<td>4.471</td>
<td>1.479</td>
<td>3.295</td>
</tr>
<tr>
<td>Updates</td>
<td>1.211</td>
<td>3.146</td>
<td>2.195</td>
<td>3.703</td>
<td>3.032</td>
<td>5.237</td>
</tr>
<tr>
<td>Goal_usd</td>
<td>161,925.326</td>
<td>762,018.061</td>
<td>37,279.825</td>
<td>114,705.783</td>
<td>45,145.713</td>
<td>169,391.931</td>
</tr>
<tr>
<td>Duration</td>
<td>37.839</td>
<td>13.640</td>
<td>33.277</td>
<td>12.476</td>
<td>35.768</td>
<td>11.344</td>
</tr>
<tr>
<td>Log_goal_usd</td>
<td>9.892</td>
<td>1.960</td>
<td>9.120</td>
<td>1.697</td>
<td>9.181</td>
<td>1.516</td>
</tr>
<tr>
<td>Staff_pick</td>
<td>0.031</td>
<td>0.175</td>
<td>0.098</td>
<td>0.300</td>
<td>0.160</td>
<td>0.368</td>
</tr>
<tr>
<td>Success</td>
<td>0.086</td>
<td>0.281</td>
<td>0.171</td>
<td>0.381</td>
<td>0.351</td>
<td>0.480</td>
</tr>
<tr>
<td>Backers</td>
<td>11.430</td>
<td>25.054</td>
<td>20.146</td>
<td>46.120</td>
<td>42.894</td>
<td>96.259</td>
</tr>
<tr>
<td>Pledged_usd</td>
<td>985.182</td>
<td>2,667.517</td>
<td>1,838.050</td>
<td>5,529.793</td>
<td>5,788.480</td>
<td>16,668.464</td>
</tr>
</tbody>
</table>

Source: Own calculations.

2.4. Model Specification

As our dependent variable is binary, defined as in equation 1, we used binary logistic regression to test the hypotheses.

\[
P_1(Y_i = 1) = \frac{1}{1 + e^{-(\alpha + \beta_1 X_1 + \cdots + \beta_9 X_9)}} \text{, as model 1,}
\]

\[
P_2(Y_i = 1) = \frac{1}{1 + e^{-(\alpha + \beta_1 X_1 + \cdots + \beta_9 X_9 + \beta_{10} X_{10})}} \text{, as model 2,}
\]

and

\[
P_3(Y_i = 1) = \frac{1}{1 + e^{-(\alpha + \beta_1 X_1 + \cdots + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11})}} \text{, as model 3.}
\]

\[X_1 = \text{log\_goal\_usd}\]
\[X_2 = \text{duration}\]
\[X_3 = \text{staff\_pick}\]
\[X_4 = \text{pictures}\]
\[X_5 = \text{video}\]
\[X_6 = \text{rewards}\]
\[X_7 = \text{blurb\_length}\]
\[X_8 = \text{comments}\]
\[X_9 = \text{updates}\]
\[X_{10} = \text{gender}\]

We presented three models. The first model consists only of the control variables (funding target, campaign duration, and the favorite status of the campaigns).
Next, we introduced variables related to the project characteristics (number of pictures, number of videos posted, number of rewards, number of words in the project’s short description, number of comments, and updates). Finally, in the third model, we included all variables.

3. Results

Table 4 shows the results of binary logistic models as defined above. All models are statistically significant ($p < 0.01$) and explain the relevant share of the variation of the dependent variable. We found all control variables to be statistically significant in the first model. As expected, the campaigns with higher targets set as goals are less likely to succeed and ones with higher duration. Each increase in the funding target on Kickstarter for organic farming decreases the odds of success. The time length of the campaign is negatively associated with success; the longer the campaign, the lower the odds for success. This holds for all three models. Staff picks or campaigns designated by the Kickstarter team members as favorites are not statistically relevant in models II and III. In the first model containing only control variables, this variable is statistically significant with a positive sign and a relatively high coefficient, indicating that the backer trust increases when the Kickstarter team marks a campaign as a favorite. However, when considered with other variables, the effect of the staff pick is insignificant and suppressed by other variables in Model II and III.

The number of pictures, rewards, and blurb length in both models is not statistically significant. However, all three have a positive sign. Posting a video is the only statistically significant success variable for project quality in organic farming campaigns in both models II and III. In addition, posting a video has the highest positive coefficient in these two models ($b = 1.597$, model II and $b = 1.687$ in model III). These findings imply that, in terms of project quality, publishing a video is one of the most crucial aspects of project success. Considering this, our data only partially support the H2a hypothesis.

The variables that show campaign information, on the other hand, are all statistically significant and have a positive relationship with the dependent variable, suggesting that putting an effort into campaign information increases the odds of campaign success. Comments ($b = 0.326$, model II and $b = 0.423$ in model III) and updates ($b = 0.335$, model II and $b = 0.405$ in model III) are statistically significant and positively related to crowdfunding success, supporting H2b.

In the third model, we added the variable related to the gender. As it is a categorical variable, we interpret results compared to a baseline category of mixed-team creators.
With the introduction of gender in the third model, the results remain unchanged, and as with the project quality, gender contributes to the overall model. The coefficients for gender are negative and statistically significant (p < 0.01), suggesting that couples (mixed teams) have higher odds of success in their ventures than male and female campaign creators, supporting H1. When we re-run the regression with the female as the baseline category, we still received a strong statistically significant coefficient for teams, observing that forming a mixed team positively affects success. Mixed teams have higher odds of success than females (b = –2.627 in model III) and men (b = –2.297 in model III).

These findings are in line with the descriptive statistics of the subsamples presented above, which demonstrate that mixed teams generally receive higher amounts of money pledged, have a greater number of backers, produce projects of higher average quality, and are more informative, all of which contribute to better success rate.

Table 4

Binary Logistic Regression Analysis Results on Crowdfunding Success

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>5.466***</td>
<td>6.169***</td>
<td>9.955***</td>
</tr>
<tr>
<td></td>
<td>(1.184)</td>
<td>(2.236)</td>
<td>(2.578)</td>
</tr>
<tr>
<td>Gender – female</td>
<td></td>
<td>–2.627***</td>
<td>(1.055)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.055)</td>
<td></td>
</tr>
<tr>
<td>Gender – male</td>
<td></td>
<td>–2.297***</td>
<td>(0.695)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.695)</td>
<td></td>
</tr>
<tr>
<td>Pictures</td>
<td>0.049</td>
<td>0.042</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.0494)</td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td>1.597***</td>
<td>1.687***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.588)</td>
<td>(0.578)</td>
<td></td>
</tr>
<tr>
<td>Rewards</td>
<td>0.009</td>
<td>0.034</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.070)</td>
<td>(0.087)</td>
<td></td>
</tr>
<tr>
<td>Blurb_length</td>
<td>0.008</td>
<td>0.005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td>(0.015)</td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td>0.326***</td>
<td>0.423***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.116)</td>
<td>(0.138)</td>
<td></td>
</tr>
<tr>
<td>Updates</td>
<td>0.335***</td>
<td>0.405***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.095)</td>
<td>(0.114)</td>
<td></td>
</tr>
<tr>
<td>Log_goal_usd</td>
<td>–0.655***</td>
<td>–1.136***</td>
<td>–1.306***</td>
</tr>
<tr>
<td></td>
<td>(0.119)</td>
<td>(0.202)</td>
<td>(0.198)</td>
</tr>
<tr>
<td>Duration</td>
<td>–0.043***</td>
<td>–0.050***</td>
<td>–0.080***</td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.031)</td>
<td>(0.038)</td>
</tr>
<tr>
<td>Staff_pick</td>
<td>3.038***</td>
<td>1.114</td>
<td>0.869</td>
</tr>
<tr>
<td></td>
<td>(0.536)</td>
<td>(0.610)</td>
<td>(0.658)</td>
</tr>
<tr>
<td>CoxandSnell R Square</td>
<td>0.250</td>
<td>0.451</td>
<td>0.438</td>
</tr>
<tr>
<td>Nagelkerke R Square</td>
<td>0.399</td>
<td>0.720</td>
<td>0.771</td>
</tr>
<tr>
<td>Number of observation</td>
<td>263</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Robust standard errors are in parentheses, and *** Significance level: 0.01.

Dependent Variable: Success Binary.

Source: Own calculations.
4. Discussion

Our findings show that the crowd most supports gender-mixed teams. Not only are mixed-gender teams’ campaigns more likely to succeed (35 percent success rate), but they also have the most backers (42.89 on average) and the most money pledged (USD 5,788 on average). That is partially in line with Hellmann et al. (2021) stating that although none of the gender variables is significant (female, male and mixed teams) to success, all-female teams set lower goals and they still raise less than their all-male counterparts as well as mixed-gender teams.

The teams are made up of families, typically with children or couples who live or plan to live in rural locations due to the unique nature of organic farming. Organic farming projects are unique in that they are not only about creating a new business but also about making rural living feasible. The teams seemed aware that being a couple with children could help them get funding. Namely, the family link was not just revealed but almost always highlighted in the campaigns and often accompanied by photos and videos. However, our results show that posting a video significantly increases the likelihood of being funded. The results of the third model clearly show that gender differences increase the importance of introducing videos for crowdfunding success.

One might wonder whether backers support mixed-gender teams for emotional and altruistic reasons or whether mixed-gender teams have posted higher-quality projects. To answer this question, several campaign characteristics were analyzed.

We discovered that males’ organic farming projects were far more ambitious than females’. While the goal was USD 161.925 for males’ projects, females sought USD 37.280 on average. On the other hand, gender-mixed teams, on average, sought USD 45.146.

As De Crescenzo et al. (2022) pointed out, many studies have underlined the role of updates, pictures, videos, and narrative sections in reducing information asymmetry and producing positive signaling effects for crowdfunding projects. Observation of the number of photos shows that males posted an average of 3.5 photos, females 4.3, while the teams posted on average 5 photos. Teams (6.83) also offered more rewards on average than males (5.34) and females (5.15). Teams (118.31) posted, on average, more detailed project descriptions than males (113.64) and females (117.83) and made more updates (3.03) than males (1.21) and females (2.19). It is therefore not surprising that the projects of mixed teams (1.48) have provoked more comments than those of males (0.8) and females (1.39). Yet, teams posted fewer videos (1.39) on average than males (1.57) and females (1.44). It could be concluded that posting a video significantly increases the likelihood of being funded, but their number does not play an important role.
A higher number of posted pictures could better express the projects and contribute to a higher sentiment of the backers, increasing the likelihood of being funded. Yuan et al. (2021) pointed out that funders’ motives are affected by motivational cues, such as charity and reward cues (Allison et al., 2015), and other factors, such as narratives’ sentiments. The importance of sentiment in crowdfunding has mainly been confirmed (Yuan et al., 2021). Malmström et al. (2017) find that women and men have different styles of language and rhetoric and that these differences influence fundraising abilities, while Anglin et al. (2022) recently pointed out that the language used in campaign narratives is central for crowdfunding. On the other hand, Zheng et al. (2016) demonstrated that gender plays a role in determining the choice of profile picture.

One possible explanation is that mixed teams made better choices than both men and women in choosing photos and narratives. But it could also be that it is more about supporting couples living and working in rural areas than financing entrepreneurial ventures. This hypothesis supports the fact that campaigns with lower goals were more likely to be founded. Namely, Kickstarter is not a prosocial platform, and it is expected that a limited number of backers motivated by altruistic goals will be present on this platform. However, as Figueroa-Armijos and Berns (2022) recently found, prosocial crowdfunding could also stray from its goal of supporting the poor and underserved, mainly if these are located in rural areas or are in businesses characterized by low turnover, as is the case in agriculture.

**Conclusion**

Fundraising success is directly impacted by the funders’ behavior, stimulated by their motives (Yuan et al., 2021), and intrinsic motivation is influenced by gender (Andreoni and Vesterlund, 2001). One would expect female campaigns to motivate more funders, especially females, knowing that women scored higher than men in several wisdom subdomains associated with social connectedness and compassion (Treichler et al., 2022). Wesemann and Wincent (2021) stated that „women in crowdfunding should use their gender as advertising, use more female-centric language, avoid self-promotion, start businesses in male-dominated sectors, and ask for more money.“ Yet our results reveal that mixed teams are more likely to be successful in fundraising than female or male initiatives. Still, it is difficult to say whether this result is a consequence of a better idea and presentation of the project or a result of the crowd’s favorable attitude towards young couples in most cases. It is also possible that the results are a consequence of both. Treichler et al. (2022) found that women and men have different relative strengths and weaknesses in wisdom, likely driven by socio-cultural and biological factors. From this, we
can conclude that it is possible that a couple could benefit from a better project idea and project presentation than they potentially could as individuals. However, the advantage of mixed-gender fundraisers over male and female ones could be the consequences of having more external social connections; therefore, as Guo et al. (2021) suggested, a higher number of funders. This finding supports the findings of Anglin et al. (2018), meaning that successful crowdfunding campaigns must balance narcissistic rhetoric with the perceived social roles of entrepreneurs. Our results support Cicchiello et al.’s (2021) observation that mixed teams were more likely to obtain financing through equity crowdfunding platforms.

As recently highlighted by Balayar and Mazur (2022), “promoting rural women’s agricultural entrepreneurship in the Global South has become a major policy and program priority for governments and development partners” due that “women’s income-earning is viewed as a pathway to their empowerment and gender equality.” Our results suggest that crowdfunding could play an important role in this task, ensuring, at the same time, a more balanced regional and rural development. The settlement of families in rural areas practicing organic farming can also be an impetus for rural tourism development.

References


DOI: 10.1007/s11187-019-00188-z.

Communication and the Role of Third-Party Endorsement in Social Crowdfunding. 

Generous? An Exploration of the Success Factors of Vegan Crowdfunding Projects. British Food 

GREENBERG, J. – MOLLICK, E. (2015): Leaning in or Leaning on? Gender, Homophily, and 
Activism in Crowdfunding. Academy of Management Proceedings, 1. Available at: 
<dx.doi.org/10.5465/AMBPP.2015.18365abstract>.

GREENBERG, J. – MOLLICK, E. (2017): Activist Choice Homophily and the Crowdfunding of 
DOI: 10.1177/0001839216678847.

dence from Equity Crowdfunding. January 18, 2021. Available at: 

from Italian Agri-Food Businesses. Journal of Small Business and Enterprise Development, 29, 

DOI: 10.1080/08985626.2016.1198425.


Crowdfunding Success within a Sustainable Economy – the Perspective of Information Commu-
nication. Sustainability, 12, No. 2, pp. 650. DOI: 10.3390/su12020650.

LINK, A. N. (2017): Gender and Entrepreneurial Activity: An Overview. Gender and Entrepre-
DOI: 10.4337/9781785364747.00005.

Mediterranean Area through Crowdfunding: Do Environmental Issues Matter? New Medit, 20, 
No. 3, pp. 101 – 117. DOI: 10.30682/nm2103g.


MALAGA, R. – MAMONOV, S. – ROSENBLUM, J. (2018): Gender Difference in Equity Crow-
dfunding: An Exploratory Analysis. International Journal of Gender and Entrepreneurship, 10, 

Support Decisions: How Governmental Venture Capitalists Socially Construct Entrepreneurs’ Po-

MOHAMMADI, A. – SHAFI, K. (2018): Gender Differences in the Contribution Patterns of Equity-


