Progress or pinkwashing: who benefits from digital women-focused capital funds?



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Abstract This paper examines the positioning of gender within women-focused capital funds (WFCFs) to consider the extent to which these digitally enabled sources of finance reflect the tenets of entrepreneurial feminism. Content analysis of 27 funds situated in Canada and the USA informs about fund mandates, rationales, types of capital, and anticipated outcomes. Our findings reveal that a minority of WFCFs examined sought to enhance equity and counter structural barriers associated with women entrepreneurs' access to financial capital. Alternatively, the majority of WFCFs were positioned as vehicles to facilitate individual wealth creation. Eligibility ranged from multiple gender identities of the business owner to "women-led" businesses—defined as at least one woman executive, board or steering committee member. The latter of these criteria has the effect of diverting attention away from firms that are launched by women entrepreneurs. Pinkwashing was more likely to occur when WFCFs were created as add-ons to mainstream programs and services, rather than as a central element of the organization's mission of supporting women and non-binary femmes. The findings support arguments that technology can both challenge or reinforce structural constraints that impede women entrepreneurs in the digital era.

Keywords Digital · Technology · Feminism · Gender · Women · Finance · Capital · Entrepreneurship

JEL Classifications B54 · J16 · L26 · O14

Digital technologies have facilitated substantive changes in entrepreneurial finance, including the emergence of crowdfunding, biometric cash assistance, crypto currencies, and mobile wallets. This paper focuses on an emergent, digitally enabled form of investment: womenfocused capital funds (WFCFs) that target women-owned, women-led enterprises, femme and non-binary entrepreneurs. Research on Web-based investment platforms suggests that digitally enabled sources of capital may disproportionately benefit women entrepreneurs (Marom, Robb, & Sade, 2014). Digital WFCFs may create economic value for suppliers and recipients of capital and support broader social change. The positioning of digital WFCFs is not, however, clear.

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The study adopts an inclusive definition of gender identity. Femme is used to characterize a lesbian whose appearance and behavior are seen as traditionally feminine. Non-binary refers to a person whose gender identity does not align with a binary understanding of gender, such as man or woman. Gender identity may include man and woman, androgynous, fluid, multiple, no gender, or a different genders outside of the woman—man spectrum. (Status of Women Canada, 2019)



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To inform the literature, the study poses two questions: in what ways is gender positioned within WFCFs?; and to what extent do digitally enabled WFCFs extend the tenets of entrepreneurial feminism? The empirical findings are based on content analysis of 27 Web-based WFCFs situated in the USA and Canada.

The study contributes to the literature in several ways. There remain widespread perceptions that lenders and equity investors discriminate against women, and that gender-related constraints limit women entrepreneurs' access to capital (Bellucci, Borisov, & Zazzaro, 2010; Carter, Shaw, Lam, & Wilson, 2007; Coleman & Robb, 2016a, 2016b; Marlow & Patton, 2005; Muravyev, Talavera, & Schäfer, 2009; Ongena & Popov, 2016). In response, entrepreneurial feminists encourage men and women to enact social change by infusing "feminist values within the act of venture creation" (Orser & Elliott, 2015, p. 18). The study tests the tenets of entrepreneurial feminism in the context of digital WFCFs. In doing so, the findings contribute to our understanding about the role of digital technologies in supporting women entrepreneurs. The structure of WFCFs, including rationale, types of capital and anticipated outcomes are also examined. These insights provide criteria to inform the construction and evaluation of WFCFs.

Scholars have also reported that supply and demandside constraints disadvantage small firms with respect to access to start-up and growth capital (Cressy, 2002; Parker, 2002). To address gender-related constraints in accessing capital, governments have introduced microloans, loan guarantee programs, venture capital programs and other capital market initiatives to support womenowned start-ups and growth-oriented businesses.² Yet, in a review of women's entrepreneurship policy research over the past 30 years, Foss, Henry, Ahl, and Mikalsen (2018) conclude that most market interventions focus on "fixing" individual skills gaps between men and women. Few interventions to support women's enterprise growth address structural or institutional impediments (Henry, Orser, Coleman, Foss, & Welter, 2017). This study extends the work of Coleman, Henry, Orser, Foss, and Welter (2018) by considering how non-profit, for-profit,

In Canada, for example, in 2018, the federal government introduced the *Women Entrepreneurship Strategy*. The budget purported to commit \$2 billion over 3 years in program investment and financing targeted at women entrepreneurs, including \$40 million fund explicitly targeted at *women-led* technology firms (https://www.ic.gc.ca/eic/site/107.nsf/eng/home).



and collective WFCFs challenge or align with policies to increase women entrepreneurs' access to capital.

The study fills several gaps in the literature, including how digital WFCFs are positioned to address capital market imperfections, the structure of these investment vehicles, and the extent to which the principles of entrepreneurial feminism are evidenced in digitally enabled pools of capital. To inform the research questions, the paper is structured as follows. The next section presents a brief literature overview of technological democracy and entrepreneurial feminism. Empirical findings about gender-related constraints to accessing financial capital are described, and the study propositions advanced. The rationale and overview of the methodology used to analyze the content of 27 Web-based marketing campaigns are then presented. The discussion of findings, implications for theory and practice, study limitation and conclusion follow.

1 Literature review

Digital technologies have been described as mechanisms that "offer possibilities for destabilizing conventional gender differences" (Wajcman, 2010, p. 144), by reducing structural barriers that hinder women's access to financial services, enhancing financial literacy, and addressing mobility constraints, particularly in geographic regions where financial services are limited.³ Illustrated digital technologies include the scaling of payment capabilities targeted at rural, remote and poor women entrepreneurs (e.g., The Gates Foundation) and gender-blind, loan applications and credit scoring. As such, in 2018, the OECD stated that digital technologies offer "leapfrog opportunities" to women, empowering them to earn additional income and gain access to information (OECD,

³ Mobile wallets, for example, are being employed to provide Syrian refugees in Jordan with efficient, private, safe, and dignified access humanitarian assistance (Hawkins & Wilson, 2017).

⁰ Within the study context, the 2017 W20 Summit is relevant because it focused on the potential of equity-based, Web-enabled sources of capital. These are viewed as means for overcoming gender barriers in the form of "male-dominated" financial institutions or networks that are more likely to invest in men-led businesses" (Sorgner, 2017, p. 29). The 2017 Women20 Summit concluded that: "The digital revolution is one of the greatest opportunities and yet also one of the greatest challenges for the global economy. W20 calls on the G20 to pay special attention to narrowing and removing the digital gender divide with regard to the access to, use of, or impact of information and communication technologies (ICT)" (W20, 2017).

2018, p.7). Similarly, the 2017 Women20 (W20, 2017) Summit focused on four pillars. Two pillars were associated with digital technology and financial inclusion for women. The summit advanced the need to: "Popularize innovative Web-based instruments for female entrepreneurs to access financial capital, such as high-quality digital platforms for angel investors, venture capital investors or equity crowdfunding that bring together female entrepreneurs and female investors (Sorgner, Eckhardt, & Krieger-Boden, 2017, p. 9)."

Conversely, digital technologies are described as mechanisms for greater income inequality and occupational segregation, as illustrated by the application of voice automation within lower-skilled, labor-intensive jobs, particularly in those services sectors in which women comprise a disproportionate portion of workers (Oxfam, 2018; OECD, 2017).

To capture the diversity of perspectives about the roles of digital democracy cited in commentary, research and policy, Dahlberg (2011, p. 855) advances several "positions" associated with the potential beneficiaries of digital technology. Of particular relevance to this study are *liberal-individualist* and *counter-publics* perspectives. Within a liberal-individualist position, digital technologies are mechanisms to efficiently transmit information to individuals and hence, increase access to resources. Dahlberg aligns the liberal-individualist position with the neo-classic, Schumpeterian view of the autonomous entrepreneur:

The democratic subject of this liberal-individualist position combines a couple of aspects. First, it is understood to be an individual, rational, self-seeking, instrumental utility maximizer who knows his/her own best interests. This self clearly reflects the classic liberal economic agent found in Schumpeter (1976: 169), through which 'citizenship becomes less a collective, political activity than an individual, economic activity – the right to pursue one's interests, without hindrance, in the marketplace' (Dietz, 1992, p. 67).

Within a liberal-individualist position, in the context of *entrepreneurial* practice, digital democracy is seen to enhance individual profit-seeking behavior, by minimizing risks and maximizing return on investment for wealth creation. WFCFs may be positioned as vehicles that support opportunity seeking individuals and economic self-sufficiency. The discussion supports the first study propositions.

1.1 Study proposition 1: WFCFs are positioned to increase women entrepreneurs' access to capital

Feminist criticism of the liberal-individualist position points out, however, that the beneficiaries of digital technology are typically privileged individuals. The individualist position expects that disadvantaged women will "lift themselves up by their bootstraps," while remaining "depend on a benevolent power structure to empower them" (Gajjala, 2014, p. 288). Gajjala (2014) also argues that the liberal-individual position presents conflicting images of women entrepreneurs. One image is that of economically emancipated, urban, privileged, White (often Western) women. Another is that of racialized, rural, third-world women who are reliant on donors and micro-loans:

"One is the individual agent—the selfempowered, mostly western(ized) and urban woman—who will form global networks through activities of leisure, pleasure, consumption, caretaking, philanthropy, and women-centered entrepreneurship. The other is the subaltern woman-most often a woman of color, of lower class and caste, and/or a rural third-world woman—who is empowered by the selfempowered woman and by various NGOsponsored development programs (such as microfinance or training programs that teach her craft and/or basic computer use) and whose activities around new technologies are purely utilitarian and which tacitly seek to deepen and strengthen her responsibility to her family." (Gajjala, 2014, p. 288)

Marlow and Swail (2014, p. 80) argue that focusing exclusively on individuals and on gender (biological) differences emphasizes a perception of weakness, "... that perpetuate[s] female disadvantage. These, in turn, constrain the theoretical and empirical reach of the broader field of entrepreneurship research." Marlow and Swail (2014, p. 81) note: "In effect, gendered influences contextualize the scope for entrepreneurial behavior such that women's limited propensity for new business creation or firm growth does not reflect individual deficit but situated constraint." Situated constraints reflect extraneous influences or structural barriers that impact investment and financing practices.

To support strategies that benefit diverse groups of women entrepreneurs, an alternative position of digital



democracy is described. Dahlberg (2011) uses the term counter-publics digital democracy to characterize digital technologies that build solidarity among "others" by the forming of communities among under-represented groups and excluded voices. Digital platforms, such as WFCFs, may be positioned as vehicles to organize communities of practices and networks to "contest dominant discourses that frame hegemonic [ruling or dominant] practices" (Dahlberg, 2011, p. 861). As such, digitally enabled WFCFs may be positioned to address structural or institutional impediments to women entrepreneurs' access to capital.

From a liberal-individualist position, digital WFCFs may be positioned as vehicles to facilitate enterprise growth of women-owned firms through access to financial capital, to enhance choice with respect to types of capital used to finance an enterprise, and to construct networks of growth-oriented or like-minded women entrepreneurs. From the counter-public digital democracy position, WFCFs may be vehicles to create solidarity among marginalized entrepreneurs, and address structural barriers that impede women entrepreneurs' access to capital and full economic inclusion. The literature informs the second study propositions.

1.2 Study proposition 2: WFCFs are positioned to address structural barriers that impede women entrepreneurs' access to capital

While both potential positions of WFCFs identified in the first two study propositions are important, entrepreneurial feminism seeks to support the broader outcome of gender equality.

1.2.1 Entrepreneurial feminism in the digital era

Feminism advocates social, economic, political, economic and intellectual equality for women and men (Orser & Elliott, 2015). Feminist theory aims to understand the nature of *gender in/equality*. This study adopts a social feminist paradigm that assumes gender is a social construction that is reflected in masculine/feminine norms and socialized expectations (Ahl, 2004). "Social feminist theory emphasizes differences between women and men due to their socialization, and suggests that gender is a social outcome, an accomplishment, and essentially a relational concept. Social feminism respects women's knowledge as unique and valid, including feminine and feminist experiences, and

introduces the likelihood of gendered entrepreneurial identities" (Coleman et al., 2018, p. 8).

Emerging within social feminist theory, entrepreneurial feminist theory seeks to explain entrepreneurial actions that respond to gendered norms, cultures, expectations and practices that subordinate women and girls. Entrepreneurial feminism presupposes that feminist principles should be deliberately enacted in the construction of new businesses, small business support organizations and small business and entrepreneurship policies (Orser, Riding, & Weeks, 2018). Entrepreneurial feminism does not view women as passive victims of "gendered" entrepreneurial ecosystems. Ecosystems encompass "social, political, economic, and cultural elements within a region that support the development and growth of innovative start-ups and encourage nascent entrepreneurs and other actors to take the risks of starting, funding, and otherwise assisting high-risk ventures" (Spigel, 2017, p. 49). Hence, entrepreneurial femininst theory assumes that enterprising women and men act as change agents as they re-create rules of the marketplace to make up for historical subjugation of diverse women (Orser & Elliott, 2015; Coleman et al.,

Scholars and popular media have reported on women and men employing a gender lens on decisions associated with wealth management and investment in order to assert control over financial capital, including via women-focused capital investment pools (O'Kane, 2018; Olsen, 2018). A digital funding platform and program, the Rising Tide Fund, and its successor, the Next Wave Impact Fund (nextwaveimpact.com) are consistent with entrepreneurial feminist investment practice (Table 1). Both Rising Tide and Next Wave Impact were launched with the goal of reducing the gender imbalance in angel investing, thus seeking to increase women entrepreneurs' access to financial capital. Launched in 2017, Next Wave Impact also espouses values that incorporate transformational impact, interactive education, integrity/transparency/respect, collaboration, and creating an inclusive community, values that are consistent with the notion of creating communities of mutual cooperation and respect as a means for addressing structural barriers that impede women entrepreneurs' access to financial capital. Other illustrative digitally enabled interventions include: Liis Beth (https://www.liisbeth. com/contributors/profiles/petra-kassun-mutch/), a digital platform to support the "growing feminist



Table 1 Next wave impact fund

Launched in 2015, the goal of the *Rising Tide Fund* was to reduce the gender imbalance in angel investing by increasing the number of women angel investors (Coleman & Robb, 2018). Limited partners included 9 lead investors and 90 novice investors, all women, who had the financial means and desire to engage in angel investing.

Over a one-year training program, novice investors participated in educational and networking activities and had opportunities to become actively engaged in the investment process under the guidance and mentorship of the nine lead investors. By the end of the training period, the fund had invested in 10 companies, 9 of which had at least 1 woman on the founding team, and 6 of which had women CEOs.

Based on the success and response to the Rising Tide Fund and its accompanying Angel Training Program, in 2017, 1 of the Riding Tide managing partners launched a second fund, the *Next Wave Impact Fund*. At the time of this writing (June, 2018), the fund has made 3 investments in entrepreneurial firms, all of which have women CEOs. Lessons learned from the *Rising Tide Fund* were incorporated into Next Wave Impact Fund educational and networking activities. Review of the *Next Wave Impact Fund* Website reveals a number of elements that are consistent with an entrepreneurial feminist perspective:

- The Website emphasizes diversity in angel investors and entrepreneurial teams, and reports that 25 of the 99 investors are women of color.
- The Fund's statement of values incorporates transformational impact, interactive education, integrity/transparency/respect, collaboration, and creating an inclusive community, values that are more aligned with feminist discourse.
- The fund sought to balance social and economic returns, noting that companies considered for funding must be impactful in a measurable way as well as profitable and scalable. An emphasis on social value creation creates additional opportunities for women entrepreneurs given that there is a smaller gender gap in social entrepreneurship than in commercial entrepreneurship (GEM, 2015, p. 21).
- In contrast with the prevailing focus on male-dominated industries such as high tech, Next Wave Impact Fund invested in a broad array of industries including those where women were more likely to be well represented, i.e., education, health, water, financial innovation, financial access/inclusion, green technology, sustainable consumer products, employment generation, and aging/longevity.

In sum, Web-based digital marketing content of the fund communicated a sense of community that is inclusive, supportive, collaborative, respectful, and caring of investors and entrepreneurs.

economy," and The Scotiabank Women Initiative Knowledge Centre (https://www.scotiabank.com/women-initiative/ca/en/the-initiative.html) to support equity. Women-centric intermediaries, such as digital WFCFs, may aim to alter exchange processes that better support social justice and gender equality.

The tenets of entrepreneurial feminism suggest the positioning of WFCFs will extend beyond individualistic and structural outcomes. This infers acknowledging the privileged nature of femininity, as defined by White, middle class, heterosexual women over racialized, ethic, Indigenous peoples and non-heterosexual identities. Entrepreneurial feminism also seeks to identify inefficient entrepreneurial ecosystem norms and practices that marginalize some women entrepreneurs, particularly racialized, immigrant, disabled, Indigenous, and Lesbian, Gay, Bisexual, Trans-sexual and Queer (LGBTQ) persons and other women-identified peeople. The discussion supports the third and final proposition.

1.3 Study proposition 3: WFCFs are positioned as vehicles to enhance equity for women entrepreneurs

The positions associated with the beneficiaries of digital technology in enhancing women's entrepreneurship is layered and multi-dimensional. The following section presents a synthesis of the literature that captures individual, firm and institutional spheres of influence or barriers to women entrepreneurs' access to capital. The literature also provides insights to inform response strategies employed by WFCFs.

1.3.1 Constraints associated with women entrepreneurs' access to capital

Women business owners have voiced concern about gender gaps in capital markets, particularly for highrisk, growth-oriented women-owned enterprises (Abbasian & Yazdanfar, 2015; Mitchelmore, Rowley, & Shiu, 2014). Furthermore, compared with men, women entrepreneurs typically raise smaller amounts of financial capital, and are more reliant on personal rather than external financing (Coleman & Robb, 2009, Coleman & Robb, 2016a, 2016b; Brush, Greene, Balachandra, Davis, & Blank, 2014; Leitch, Welter, & Henry, 2018). To explain gender influences in the capitalizations of small business practices, researchers have advanced explanations at the *owner*, *firm* and *macro* or *institutional* levels of analyses.

At the *individual-level*, gender differences in financial knowledge (Lusardi & Mitchell, 2011), financial self-efficacy (Amatucci & Crawley, 2011), and risk tolerance (Sánchez Cañizares & Fuentes García, 2010; Watson & Newby, 2005) have been identified as factors impeding the ability of women entrepreneurs to secure



external financial capital, compared with men. Differences in human capital are reported, such that, women founders bring fewer years of financial management experience (Verheul & Thurik, 2001) and different commercial financial knowledge to start-ups compared with male counterparts (OECD, 2016).

Limited financial confidence further inhibits commercial lending. Brindley (2005) contends, for example, that individuals with lower self-confidence are more likely to be risk averse and thus less likely to take on debt. Likewise, Verheul and Thurik (2001, p. 334) postulate that: "lack of confidence of female entrepreneurs in their own entrepreneurial capabilities may be attributed to a relatively negative self-perception." Verheul and Thurik (2001) find that, compared with males, women business owners have less experience with financial management. This infers relatively less information about financing options and correspondingly, relatively greater informational opacity than among men.

Similarly, on average, women may have less commercial financial knowledge regarding strategies to acquire financial capital, as well as the costs and benefits associated with various sources of external financing, i.e. tax treatment of debt (Constantinidis, Cornet, & Asandei, 2006). Thus, women business owners may not apply for debt, even when capital is required. To this stance, Carter and Rosa (1998, p. 231) report: "not only are female business owners less likely to use institutional arrangements such as bank overdrafts and loans, they are also less likely to take advantage of cheaper sources, such as extended supplier credit."

At the *firm-level*, women-owned firms are less likely to use external or commercial banks (Coleman & Robb, 2016a, 2016b; Orhan, 2001; Robb & Wolken, 2002), employ less start-up capital (Coleman & Robb, 2009; Jung, 2010), retain lower debt-to-asset ratios (Watson, 2006) and are more likely to perceive financial barriers to start-up (Roper & Scott, 2009) compared with maleowned firms. Eddleston, Ladge, Mitteness, and Balachandra (2016), p. 490) summarize studies that examine gender influences in lending relationships, concluding that lending officers employ different evaluative criteria for women and men entrepreneurs, to the detriment of women. They also request greater information from women compared with men in order to obtain financing, and are more likely to question the commitment of women entrepreneurs.

Women entrepreneurs may be more likely to be discouraged borrowers, motivating them to seek less

traditional sources of capital. Coleman and Robb (2014, p. 16), for example, report that: "Women were more likely to refrain from applying for credit due to fear of denial." Likewise, Hill et al. (2006, p. 178) report that, owing to the perception that banks hold a negative view of women business owners, relatively fewer women sought capital from banks (Brindley, 2005). Conversely, Freel, Carter, Tagg, and Mason (2012) and Cole and Mehran (2011) report that, what at first appear to be significant univariate (male/female) differences in "discouragement" disappear after controlling for systemic differences in owner and firm attributes. Only a small minority of empirical studies support the assertion of gender discrimination or disrespectful treatment of applicants by commercial lenders (Wu & Chua, 2012), and the weight of empirical evidence suggests no gender differences in terms of lending after controlling for other firm and owner attributes. Nevertheless, Hendon and Bell (2011) found that women business owners were more likely to use credit cards, a costly and short-term source of borrowing, than commercial loans. In addition to their relatively higher cost, reliance on credit cards also obviates learning outcomes associated with the loan application processes which lead to higher levels of financial literacy, and to more substantive and longterm banking relationships.

At the *institutional level*, scholars report gender bias in the structure of capital markets, including homophily in investment networks (Becker-Blease & Sohl, 2007; Eddleston et al., 2016; Harrison & Mason, 2007; Marlow & Patton, 2005) and structure of investment discourse, such as the nature of questions posed by investors (Kanze, Huang, Conley & Higgins, 2017). Homophily refers to the characteristic of individuals to associate or interact with others who have similar backgrounds (e.g., schools, employer) and personal characteristics (e.g., gender). Similarity is shown to increase information redundancy, and the likelihood of investment. Venugopal (2017), for example, has reported on the impact on homophily on investment outcomes, where investment was 23.4 percent more likely when the angel and founder shared a social connection, particularly if the angel and founder have worked for the same employer during an overlapping period.

With respect to gender defined as masculine and feminine attributes, feminist scholars argue that there remains lower acceptance of feminine entrepreneurial behavior (Balachandra, Briggs, Eddleston, & Brush, 2019; Orser & Elliott, 2015). This includes gendered



stereotypes within the lexicon of *entrepreneurial attributes* (Gupta & Turban, 2012; Gupta, Goktan, & Gunay, 2014; Orser, Elliott, & Leck, 2011) and *imagery* (Brooks, Huang, Kearney, & Murray, 2014) of what constitutes entrepreneurial success. An unintentional double standard is evidenced in capital markets, where women entrepreneurs are expected to deliver safe returns on investment, while men are expected to demonstrate opportunities for rapid capital growth (Kanze et al., 2017). This situates women entrepreneurs in "... a catch 22. If they conform to the femininity expected of their gender role stereotype, they will fail to be considered competent and successful entrepreneurs" (Balachandra et al., 2019, p. 122).

Gender barriers are also associated with the profile of investors, and how investors evaluate and communicate with entrepreneurs. For example, women comprise 22% of members in US angel investment groups (Huang et al., 2017) and 14% of partners in Canadian venture capital firms (Female Funders, 2018). The gender compositions of investor groups and venture capital firms are relevant given that the presence of women investors is associated with increased likelihood of investment in women-owned enterprises (Brush et al., 2014). Saparito, Elam, and Brush (2013, p. 856) have examined gender influences in bank relationships, reporting that negative market signals, possibly informed by gender-biased expectations of owner competence and "gender-appropriate work roles" may be advanced in the form of informal turndowns.

Similarly, Malmström, Johansson, and Wincent (2017), in examining angels and venture capitalists, have reported on gender-stereotyped behaviors in how investors evaluate men- and women-owned enterprises. As an example, Balachandra et al. (2019) observed that investors were biased against new venture ideas pitched by entrepreneurs who displayed feminine-stereotypical behavior (both men and women). Sex-based biases were not, however, evidenced. Rather, gender-stereotyped behaviors, and specifically feminine-based behaviors were associated with prejudice against men and women entrepreneurs who exhibit them. Investors may also unconsciously discount the economic value of majority women-owned firms. Although one study on initial public offerings (IPOs) found no difference in pricing based on the gender of the CEO (Mohan & Chen, 2004), recent analysis has found that companies with a woman CEO or women co-founders received less than 15 percent of equity invested by the 25 most active venture capital firms (Bartley, 2017). The literature suggest that women-owned firms continue to garner a small amount of VC funding, and that it is important to differentiate between masculine/feminine and binary (gender or sexbased) attributes to inform capital market response strategies.

Collectively, the literature supports arguments made by Jennings and Brush (2013) that gender influences with respect to the capitalization of small and mediumsized enterprises are subtle and residual. It may be that women receive different situated cues, market- and domestic-based signals that confirm that their entrepreneurial and financial decisions are not normative. Such signals reflect historic and contemporary exclusion of women from investment circles (Neville, Forrester, O'Toole, & Riding, 2018). As suggested by Marlow and Swail (2014, p. 88): "These disadvantages arise from gendered constraints rather than outcomes of individualized female deficits articulated, for example, as excessive risk adversity and financial caution." Individual, firm and institutional barriers are expected therefore to be cited within the positioning of WFCFs.

Building on these entrepreneurial feminist guidelines, this paper considers the degree to which WFCFs are "bending the arc" to re-shape discourses about women entrepreneurs. The next section describes the study methodology used to probe the three study propositions.

2 Methodology

The study employed content analysis of Web-based digital texts extracted from 27 WFCFs. This methodology is a non-intrusive means of examining organizational texts: "Foremost to management research, content analysis provides a replicable methodology to access deep individual or collective structures such as values, intentions, attitudes, and cognitions" (Huff, 1990; Kabanoff, Waldersee, & Cohen, 1995; as cited in Duriau, Reger, & Pfarrer, 2007, p. 6). Examination of online text enabled the researchers to examine the role of digital technology in supporting women entrepreneurs in a structured environment, with a standardized set of coding rules.

2.1 Process of coding

The research team adhered to the methodology for coding identified by Duriau et al. (2007). Initial



"descriptive" pre-codes were constructed by the lead investigator from words, concepts and phrases identified in the extant literature (see above). The lead investigator acted as the code list editor. The initial codes and criteria were discussed and then revised based on the need for clarification among the research team. Effort was made to identify "filters" (Saldana, 2009) or biases and to ensure common understanding of the coding scheme.

Codifying of content (testing, refinement) of a sample of text was then undertaken. First cycle coding process included phrases, full sentences and one paragraph blocks of text. Subsequent cycle coding processes broke down content into smaller bodies of texts. Throughout the coding process, if consensus was not reached, differences in interpretations were discussed (in person) to clarify assumptions. Typically, this resulted in a code revision. If consensus was not reached, a new code and definition were created. The coding process moved from coding to ordering and categorization of data. Higher level concepts or themes were discussed among the researchers, a process that adheres to Saldana (2009) guidelines for coding, categorization and analytic reflection. Saturation was reached upon coder agreement of redundancy or replication of text (Saunders et al., 2018). Context analysis took place between April and November 2018. The final categorization of codes is presented in Table 2.

2.2 Inventory of codes

The final codes, described in Table 2, are grouped into five major categories. The first of these relates to Gender identities and includes codes reflecting gender as defined by sex (i.e., male versus female) and gender (i.e. lesbian, gay, bisexual, transgender). A code for diversity was included in this category as some funds targeted diverse categories of identity such as race, ethnicity, immigrant status, Indigenous peoples, etc. The second major category provides Rationales for capital market intervention consistent with the research questions and theoretical framework. Some funds, for example, reflected an economic rationale by focusing on the business case for investing in women-owned firms. Others focused on economic benefits to be derived by the women entrepreneurs themselves, such as selfsufficiency and poverty reduction. Another group within this category provided a gendered, rather than an economic rationale, for capital market intervention, citing feminine assets, or, conversely, demand-side deficiencies in the form of greater risk aversion, lack of confidence, and lack of networks. The gendered rationale included codes for gendered expectations and masculine structures. The codes described under the third group within rationales for capital market intervention, counter-public, included varying perspectives on networks and community, i.e. inclusive networks such as "like-minded investors," "by women, for women" enterprises, and networks that have the effect of excluding women through unconscious bias. The third major category of coding again addresses the study propositions, and incorporates outcomes which can be either economic in nature (individualistic) or geared toward promoting greater equity for women through empowerment, inclusion, shared decision-making, and social justice. Lastly, the fourth major coding category incorporates other fund characteristics, such as sources and types of financial capital, the availability of mentors or consultants, and specific industry focus. This category includes issues of fund governance, transparency, commitment, and accountability.

2.3 Sample

At the outset of the research, the decision was made to limit the sample of WFCFs to the USA and Canada. This was for several reasons. The two countries have complementary digital financial regulations, levels of economic stability, significant gender diversity in the workforce, and representation of women entrepreneurs (Schwab, 2017; GEM, 2015). It was anticipated that both countries would support similar types of WFCFs. Several early Canadian WFCFs, for example, resemble early US market entrants. The women-focused equity investment training organization, US-based Springboard Enterprises, has also had an impact on women entrepreneurs' investment expectations in both countries. Among those WFCFs that have grown their reach internationally, in most cases, Canada and the USA were initial countries of entry.

Several techniques were used to identify WFCFs. An archived list of potential WFCFs, identified through news articles, blogs, announcements, and information shared on women's economic advisory committees, was retained by the lead investigator. An online search was undertaken using query terms, such as female, women, small business, funding, capital, and investment. These terms reflected the profile of the archived WFCFs. The research team also



Table 2 Coding scheme to assess women-focused capital funds (WFCFs)

First order	Second order	Criteria
Gender identities	Biological	(0) male, (1) female
	Gender 1	(0) men, (2) women
	Gender 2	(0) masculine, (1) feminine/femme
	Other gender identities	Intersex, transgender, asexual, non-binary, femme
	Sexual orientation	Lesbian, gay, bisexual, questioning, other
	Diversity	(1) Racialized/ethnic, (2) physical/psychological health issues, (3) physically disabled, (4) learning disabled, (5) indigenous people, and (6) newcomer/immigrant
Rationales for capital market interven	tion	
Economic	Deficiency perspective	Risk propensity, confidence, financial knowledge, networks, etc.
	The business case	Under-utilized economic assets or resources, economic opportunity
	Return on investment	Investors discount market "value" of women-owned enterprises
	Economic	Investment in women lends to economic self-sufficiency
	self-sufficiency	
	Poverty reduction	Alleviate poverty by increasing women's per capita income
Gendered rationale	Feminine assets	Social capital, marketing/product/process/organizational innovation
	Gendered expectations	Acknowledge gender differences in values, expectations, aspirations
	Masculine structures	Counter tolerance of masculine language, market structures, rules
G	Demand-side bias	Unconscious bias among entrepreneurs (e.g., discouragement)
Counter public	Community, congregation Entropropourial faminism	Cadre of like-minded investors, entrepreneurs (homophily) Supporting "by women, for women" enterprises
	-	
Outcomes	Supply side bias	Unconscious bias among investors (e.g., awareness, networking)
Individualistic	Economic outcomes	Firm growth ich arcation return an investment size of mortest/mortest
individualistic	Economic outcomes	Firm growth, job creation, return on investment, size of market/market share, efficiencies, profitability, IPO, valuation at market exit, other economic
Equity	Social, equity, equality	Social justice, empowerment, inclusion, human rights, well-being
	Feminist values	Win/win partnership, shared decisions, empathy, trust, caring
Support services and operations		
Finance	Source of capital	Individuals, donors, NGO, banks, angel/syndicates, venture capitalists
	Forms of capital	Micro-loans (≤ \$5K), debt (term, operating, convertible, other), equity
Other	Mentors	Psychological support and tactical knowledge
	Consulting	Training, education, advice, business planning, prep pitches
Governance	=	No. total, No. women, No, men
	team	
	Assessment criteria	Financial, social, relational, philanthropic, others
Demonstrated capacity and	Political will	Executive commitment to women's advancement
commitment to gender equity and equality	Technical competencies	Demonstrated expertise in gender, feminist knowledge, training, etc.
equanty	Accountability	Tracking, measuring financial, social, philanthropic, other outcomes
	Corporate culture, norms	Gender-sensitive culture, norms, workspace, program design, etc.
Industry	Men-/women-dominated	Male: advanced technology; women: services, social enterprises

examined the US "Small Business Administration" and "Innovation, Science and Economic

Development Canada" Websites for information on WFCFs and related initiatives.



Units of analysis were based on guidelines advanced by Haas and Grams (2000). To be included in the sample, the source pages had to: (a) be reachable by our browsers (that is, we excluded password-protected pages); (b) include in the text one or more references to gender (such as female/male; women/men), firms, entrepreneurs, business founder or business owner, and investment or capital or finance or support; (c) be in English or French, as we did not feel qualified to do content analysis of other languages; and (d) be judged not to be pornographic, as this was deemed as nonrelevant subject matter. The target page referred to any page that can be reached from a link on the source page. Only first-generation target pages, those directly linked to the source page, were included in the analysis. The source checks were not replicated on second-level pages, as content varied considerably (e.g., from graphics to dense text).

2.4 Validity and reliability

As noted above, data collection entailed construction of an initial, and subsequent coding sheets comprised key constructs and criteria drawn from the literature and then texts. The coding sheet was refined through four iterations of case reviews and served to establish the validity of the analysis and between-coder agreement. Manual content analysis was then undertaken.

Cases were then selected using an online random number generator that coincided with the case numbers. Two coders entered data and recorded impressions independently in an Excel spreadsheet. To ensure clear understanding of the coding sheet, they first coded two cases together (C18, C25). Coding differences were discussed to clarify assumptions. Reliability scores were then calculated on individual coded content, with the objective of achieving 70% between-coder reliability (as specified by Boettger & Palmer, 2010). Reliability ranged from 71% (C7), 79% (C23), 70% (C17), and 86% (C28). The remaining cases were divided between the coders.

Following an initial case analysis, five were omitted from the sample: (C4) was a philanthropic organization to mobilize capital for general initiatives that benefit girls and women; (C8) was a mainstream economic development agency with no funding; (C20) was situated in India; (C26) was situated in Asia; and (C28) and (C29) were regional women's enterprise centers under the same funding authority. Case 28 was analyzed based

on the random computer-generated case selection as the organization or fund did not meet the sample criteria. The profile of the remaining 27 WFCFs is presented in Table 3.

The table captures the range of operational frameworks, from mainstream (non-gendered) to gender or women-centric intermediaries, and types of capital deployed. Another initial finding drawn from the table is the limited number of WFCFs that report on economic and impact-focused investments, such as Next Wave Ventures. The most common response category was "not disclosed." Further examination of the case data follows.

3 Findings

3.1 Definitions and eligibility

Few of the funds examined incorporated an inclusive definition of gender. Among all but two WFCFs, gender was described using binary (men/women) and sex (male, female) attributes. Pipeline Angels (C18) cited multiple, socially constructed intersectional attributes. SheEO (C1) referenced LGBTQI entrepreneurs. Two WFCFs cited support of "diverse founding teams" and "diverse teams" (C23, SoGal Ventures and C33, Plum Alley Investments, respectively). Neither fund defined the term "diverse." One WFCF, Digitalundivided (C15) focused exclusively on creating social capital and advancing capital to Black and Latinx founders.

Eligibility criteria for gender composition of ownership and the representation of women in leadership roles (women-led) varied considerably. The terms female founder, women-owned, and women-led were often used interchangeably, sometimes on the same Webpage. Only two WFCFs (Capital Fund for Women II, C3; and Women's Enterprise Centre of British Columbia, C28) adopted the definition of women-owned business advanced by the United Nations (2017). Eligibility criteria of WFCFs that promote women in executive leadership



⁵ "Pipeline Angels is dedicated to providing a harassment-free experience for everyone, regardless of gender, gender expression, sexual orientation, disability, mental illness, neuro(a)typicality, physical appearance, body size, age, ethnicity/race, nationality, or religion. We do not tolerate harassment of, including micro-aggressions against, participants in any form. By exception, Pipeline Angels referenced equity network members as, "women and non-binary femme social entrepreneurs."

 Table 3 Profile of women-focused capital funds (WFCFs)

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	Name	Type 1 ^a	Type 2 ^b	Description/portfolio/ mandate	Gender criteria/eligibillity	Other criteria	Impacts/outcomes
C1	SheEO		0	Philanthropic donors, group-based loan fund	Majority (51%) women owned or women led		3000 "activators"; 32 funded ventures; on average, 3 jobs/venture/year, 70% of ventures raising follow-on capital, triple-digit annual growth; \$3M in loans
C3	Next Wave Impact	1	1	Learning by doing, angel investing fund	Focuses on firms founded by women or with women as a part of the leadership	Looks for both social/environmental and economic impact	Majority of 99 investors are women. At the time of coding, all 3 investments had women CEOs
C3	Capital Fund for Women	0	0	Certified SBA micro-lender, community advantage lender	+ 51% owned/controlled by women; day-to-day operations; make long-term decisions	Some economically disadvantaged; early adopters or launched	+ 45,000,000 in loans, + 620 firms /non-profits, 3000 jobs
90	Women's Venture Capital Fund	0	1	Syndicated equity fund	Female-led start-ups	Tech, tech-enabled companies	Women's Venture Capital Fund I (2013) closed
C7	BELLE Capital	-	-	Angel group	Women led, I female founder or C-level executive, or willing to recruit female to C-suite or board of directors	IT, life sciences, medical devices, health IT, clean tech	Not disclosed
60	Start-up Canada Women's Founders Fund	0	0	Champion ENT as a vehicle for inclusive economic growth	Women entrepreneurs or women-led businesses	Science, technology, engineering, and math	Represent + 200,000 entrepreneurs, 50 grassroots communities
C10	Wingpact I	1	1	Match investors/entremeneurs	Women angel investors or		Not disclosed
C11	BMO Women in Leadership Fund	0	-	Large financial institution, Indexed fund	Female CEO or Board of Directors + 25% female representation. Benchmark: Barclays Women in Leadership North America Index		Net asset value increased from \$3 million to \$15 million. Series A units returned 6.19% versus the Fund's benchmark return of 8.97%
C12	Astia Angels	-	0	Investor network (men, women)	At least 1 woman in a position of leadership, holding equity		60% of companies achieve funding or exit within 1 year of presenting
C13	Golden Seeds	1	1	Equity fund	Women-led companies		275 investors
C14	MergeLane	_	_	Equity fund	Women-led start-ups		Since 2015, 37 firms, 3 accelerators
C15	Digitalundivided	_	-	Angel network, education	Black, Latinx women founders		Not disclosed
C16	Amber Grant Foundation	_	0	Philanthropic, memorial foundation, micro-grants	"Women behind the business"		37 companies (27 accelerator cohort alumni); \$23.8 million in funding; 469 jobs (including 46 leadership roles for women
C17	Pax Ellevate Global Women's Index Fund	-		Digital advice platform for women, fund	Women angels		Fund outperformed MSCI World Index for 1- and 3-year periods ending 31 March 2018



 Table 3 (continued)

	Name	Type 1 ^a	Type 2 ^b	Description/portfolio/ mandate	Gender criteria/eligibillity	Other criteria	Impacts/outcomes
C18	Pipeline Angels		-	Angel group	Female founder or owner or commit to recruiting females to C-suite and	Large, fast-growing market	US\$5M in 50+ companies via pitch process
C19	Prosper Women Futrements	-	_	Accelerator, seed investment	Female presidents, founders, and CFOs		Not disclosed
C21	Fierce Founders Communitech	0	0	Tech incubator, innovation center	Women: online vetting tool (HR Plum survey)	Technology or tech enabled	Not disclosed
C22	BBG Ventures	0	_	Micro-VC fund	At least 1 female founder	Consumer Internet and mobile start-ups	Not disclosed
C23	soGal Ventures	_	1	Micro-VC fund	Diverse founding teams	•	Not disclosed
C24	Female Founders Fund	_	-	Micro-VC fund	Female founders	E-commerce, Web-enabled products, services, platforms	Not disclosed
C25	BDC Capital Women in Tech, MaRS	0	0	VC investment (government capital)	Woman led or woman founder, CEO, CTO, CFO, or be in a key C-suite position	Scalable, revenues, raise min. \$1M in seed equity, + \$10M at growth stage	Not disclosed
C27	Femmessor			Loan fund, support	Women entrepreneurs	French, regional context	Consolidation, 17 regional offices
C28	Women's Enterprise Centre	1	0	Business support services, loan fund	Woman owns and controls at least 51% of a business	Not specified	621 firms, 2500 jobs, 5 years 75% survival rate of loan clients (50% over national average), \$54M in direct/leveraged financing
C30	Portfolia FemTechFund	-	-	Investing platform, seed fund		Women's health and wellness technologies; min. \$10K	Not disclosed
C31	Chloe Capital	_	_	Early stage, VC	Women led	Tech, tech enabled	Not disclosed
C32	The RAISE Collective	1	2	Collaborative model, early seed funding	Female founders and investors	Diversity in innovation and	Not disclosed
C33	Plum Alley Investments	_	-	Equity syndicate	Women entrepreneurs and diverse teams	New technologies	Not disclosed

 a Type 1: operational framework: 0, non-gendered; 1, gender focused b Type 2: legal framework: 0, non-profit; 1, for profit; and 2, collective

were broadly defined. For example, BELLE Capital (C7), an angel group that invests in women-led enterprises, defined eligibility as: one female founder or women in the C-level or willingness to recruit females to the C-suite or board of directors. Hence, willingness to employ women met the standard. BMO Women in Leadership Fund (C11) employed similar eligibility criteria, specifically a female CEO or at least 25% female representation on the board of directors or on the executive team.

3.2 Other eligibility criteria

Approximately half of the WFCFs referenced no additional eligibility criteria online. Among the remaining WFCFs, one government-funded organization included detailed criteria for "economically disadvantaged" women entrepreneurs (Capital Fund for Women, C3).⁶ One government-supported French language WFCF referenced the need to consider regional context within fund adjudication (Femmessor, C27). One communitysponsored WFCF sought to support "diversity in innovation and entrepreneurship" (The RAISE Collective, C32). All other WFCFs specified eligibility criteria associated with technology or tech-enabled enterprises (n = 5); technology in health and wellness (n = 1); science, technology, engineering, and math (n = 1); and e-commerce, information technologies (IT), life sciences, medical devices, health IT, digital health, and clean technology sectors (n = 4). Among these technologyfocused WFCFs, seven operated as for profits (limited partnerships, incorporated), one was a small-scale women-focused program within a mainstream technology accelerator (COMMUNITECH Fierce Founders, C21), and one fund was a small, competitive grant program within a mainstream organization to promote entrepreneurship (C9, Start-up Canada).

3.3 Fund types and rationales for intervention

The 27 WFCFs reflected variation in operational and legal frameworks. Twenty WFCFs were explicitly women focused. Seven WFCFs operated within mainstream entrepreneurship or innovation organizations,

technology accelerators, or financial institutions. Nine were structured as non-profit organizations, 17 operated as for-profit corporations or limited partnerships. One WFCF was described as a collective (C32, The RAISE Collective).

Five types of WFCFs emerged for the content analysis, as summarized in Table 4. The typology is based on WFCF mandates, sources and types of capital, client profiles, and anticipated outcomes. These include philanthropic funds, government-sponsored funds, angel groups and micro-venture capital funds, managed mutual funds, and collectives.

Four underlying themes emerged with respect to rationales for capital market intervention. Themes were labeled (a) demand-side constraints, (b) demand-side opportunities, (c) supply-side constraints, and (d) supply-side opportunities.

- Demand-side constraints. Consistent with the literature, a number of WFCFs cited individual-level deficiencies of women entrepreneurs and/or investors. The most frequently cited demand-side constraints were inability to access or secure capital and need for social-psychological support. A small number of WFCFs stated women are less successful, lack professional friends, networks and role models, are risk adverse, and have not yet unleashed their full passion and potential.
- Demand-side opportunities reflected two dominant discourses: firms with women in leadership positions or with diverse executive teams outperform competitors, and women make "better" entrepreneurs.
- Supply-side constraints captured obstacles in managing personal wealth and commercial investments.
 The most frequently cited constraint was exclusion of women from investment networks.
- Supply-side opportunities. The majority of WFCFs promoted supply-side opportunities. Dominant discourses about the rationale or need for capital market interventions included: women retain untapped wealth that can be used to invest in women-owned enterprises or women-led corporations; women entrepreneurs prefer to work with women investors and women advisors; collectively, women entrepreneurs and investors can change male-dominated capital markets; women (nascent investors, entrepreneurs) prefer value-based investment; and women seek reciprocal (win/win) relationships.



⁶ Economically disadvantaged was defined as "... controlled by one or more women, each with a personal net worth less than \$750,000; owned and controlled by one or more women, each with \$350,000 or less in adjusted gross income averaged over the previous 3 years; owned and controlled by one or more women, each \$6 million or less in personal assets."

Table 4 Typology of women-focused capital funds (WFCFs)

Types of fund	Descriptive attributes
Philanthropic	Charitable, foundation or non-profit models that aggregate financial donations into grants and loans for women entrepreneurs. Anticipated outcomes include the provision of capital and community building. Entrepreneurs may also benefit from investor expertise, advice, mentoring, industry knowledge, referrals, lead purchases, etc.
Government sponsored	Predicated on the business case, debt, and equity are advanced to women business owners for the purpose of increasing start-up rates, firm survival, firm growth (e.g., increased revenue or job creation), and to enhance financial knowledge and confidence.
Angel groups and micro-venture capital	Typically based on the argument that "diversity of ownership" enhances firm performance, anticipated outcomes include increased asset valuation, ability of firms to achieve subsequent rounds of financing, market exit, number of firms within the portfolio, and total funds raised. A variation of this type of fund is "learn by doing" funds, facilitating opportunities for early-stage investor to learn about equity investing while amortizing their financial risk, building an investment network, achieving attractive high rates of return, while supporting worthy women entrepreneurs.
Managed mutual funds	Funds are positioned as enabling investors opportunities to support women's advancement and gender-diverse leadership environments, and to achieve financial and social returns from investment in corporations characterized as retaining above average representation of women in leadership positions (such as women CEOs, women in the C-suite, and women on the board of directors). Argument is made that corporations with gender-diverse leadership teams outperform competitors. Funds are used to trade shares of stocks on the secondary stock markets. Investors may have the option to direct earnings to women-focused, non-profits, or social enterprises that support women's economic empowerment.
Collectives	Short-term, fee-based funding schemes. The collective model supports small groups of entrepreneurial investors in capital raising with auxiliary support services (e.g., referrals, mentors, advice). Anticipated benefits are to: "connect with a group of complementary entrepreneurs to support each other through the challenging process of raising capital. Leverage resources, expand connections, and promote each other to RAISE your collective goals." (C32).

A number of WFCFs cited both demand- and supplyside constraints and opportunities. A summary of rationales and illustrative quotes are presented in Table 5.

3.4 Auxiliary services

With the exception of one mutual fund, WFCFs supported auxiliary investor and/or recipient services. The most frequently promoted support services focused on increasing stakeholders' social capital through digitally enabled online forums, in-person workshops, networking events, pitch competitions, conferences, and member-only portals. SoGal Ventures (C23) content, for example, stated: "In the SoGal network, you will be empowered and inspired in a peer-to-peer support system, and attend fabulous events hosted by SoGal and partners around the world." Similarly, FemTech Portfolia Fund (C30) stated: "With this investment, you get both the connectedness of angel investing and the management benefits of venture capital. Our team ... provides extensive opportunities for networking and knowledge share. ... The diligence and selection process are an engaging and highly educational experience which brings entrepreneurs and investors closer together." The focus on increasing social capital was not surprising given access to investment was frequently cited supply *and* demand-side constraint for women entrepreneurs and investors.

Based on organizational mandate and member/client/investor profiles, financial training and education were the next most frequently cited auxiliary services. Government-supported WFCFs offered the largest suite of gender-focused entrepreneurship education, training and related services. Women's Enterprise Centre of British Columbia (C28), for example, included women-focused curricula on the topics of entrepreneurial mindsets, business start-up, business and sales growth, marketing, managing diversity, small business finance, human resource management, digital adoption, as well as customized workshops. Illustrative "small business finance" courses include Financial Fitness, Financial Bootcamp, Financial Understanding, and Financial Management for Small Business. Illustrative gender-sensitive content



 Table 5
 Rationales for capital market interventions

Rationales	Illustrative quotes (cases)
Demand-side constraints: predicated on individu	al deficiencies (women are less, etc.)
Women attract less capital	"Women-led companies receive less than 12% of venture capital invested and substantially less angel capital as well." (C7)
Success eludes women	"Success requires access to capital and influential networks to propel growth the same qualities that build market-leading companies." (C13)
Women need friends, support	"Our members serve as friends and family round for entrepreneurs who may not already have support at that critical stage." (C18)
Women need role models	"XX is aiming to give investors a new pattern to recognize: the successful female tech entrepreneur. (C25)
Women need to identify their passion, unleash their potential	"We have come together to encourage other women to identify their passion determine their purpose, and unleash their fullest potential." (C10)
Women are risk adverse	"They don't feel prepared to make that first investment. They are risk averse and shy away from making large investments." (C2)
Women need financing	" a \$5 million loan fund for women entrepreneurs unable to obtain traditional financing." (C28)
Demand-side opportunities: diversity enhances of	organizational performance
Firms with women in leadership outperform competitors	"A compelling body of research shows that companies perform better when more women are in leadership roles." (C17)
Women make better entrepreneurs	"Women make great (BETTER) entrepreneurs. Women experience greater successes—and fewer failures—than their male counterparts. Yet traditional venture capital does not reflect this." (C24)
Supply-side constraints: structural biases impede	e investment flow
Women are excluded from investment networks	"Many women aren't aware of opportunities for angel investing. They aren't asked to invest. They don't know other angel investors and aren't part of investor networks." (C2)
Racialized entrepreneurs are underfunded, unnoticed	"Only 0.0006% of all venture funding has gone to Black women founders." (C15)
Supply-side opportunities: net models of lending	g (WFCFs) align with the needs of women entrepreneurs
Investing in value-based firms	" signatories to the Women's Empowerment Principles, a joint initiative of the UN Global Compact and UN Women." (C17)
Women retain untapped wealth	"Women historically have been less engaged as investors, yet they control \$11.2 trillion of US investable assets." (C3)
Women entrepreneurs prefer women investors and advisors	"Women entrepreneurs have told us that if they have a choice, they would prefer to have women investors and additional top female talent on their boards of directors and advisory councils." (C7)
Women need to create new ways of doing business	"Imagine what thousands of radically generous women could do Rather than trying to fit women into the existing models and systems and level the playing field, we are creating an entirely new field." (C1)
Women prefer collaboration, trust-based relationships	"The values we share, which continue to attract passionate, high-caliber investors and entrepreneurs to XX. Trust. We seek to operate with transparency and respect the confidentiality of information presented to us. Innovation. We expect innovation and creativity to drive value for the future. Collaboration. We enjoy collaboration with investors, advisors, co-investors, entrepreneurs, clients, and strategic partners. Respect. We create the conditions for mutual respect of both investors and entrepreneurs." (C13)
Women seek win/win relationships	"We are looking for win-win relationships that are strategic and aligned with our mission." (C1)



included negotiating equitable lending relationships. Content delivery options included workshops, Webinars, teleconferences, online, and for-purchase, self-directed study. Among WFCFs targeting women investors, some offered curricula focused on equity investing, such as the role of the angel investor, due diligence, funding start-ups, business model fundamentals, introduction to reading financial statements, introduction to term sheets, managing follow-on funding, introduction of capitalization, and *pro rata* rights and dilution. Only Next Wave Impact (C2) promoted an affiliation with an educational research foundation (Ewing Marion Kauffman Foundation) and post-secondary institution.

Other complementary or fee-based branded services included workshops or seminars on topics such as building confidence, business plans or models, pitching your ideas, matchmaking investors/business owners, etc. SheEO (C1), for example, offers free (sponsored) content through SheEO Learning Lab, "a series of live Webinars and online resources for any woman who wants the skills and knowledge to grow as an intra/entrepreneur." Digitalundivided (C17) promotes a digital platform, "TOWER is an INVITE ONLY community of women building companies, sharing resources, and uplifting each other on the entrepreneurship journey."

3.5 Accountability

To support market legitimacy, value, organizational reach, and capacity, WFCFs displayed membership size (e.g., C4), number of investors (e.g., C1), number of companies funded through the fund, pitch competition process or angel group (e.g., C18), and/or the number of engaged entrepreneurs and grassroots organizations (e.g., C9). Content analysis suggested limited accountability for most, but not all, WFCFs. Few WFCFs displayed third-party assessment or audit of fund and/ or organizational performance. Government-sponsored funds were most likely to report third-party, independent fund evaluation. Capital Fund for Women (C3), for example, reported on a recent review conducted by the Opportunity Finance Network, under the Community Development Financial Institution Assessment and Rating System.

By exception, two WFCFs compared fund performance against benchmark indices. Pax Ellevate Global Women's Index Fund (C17) stated the fund

outperformed the MSCI World Index⁷ for 1- and 3-year periods, ending 31 March 2018. Few details were posted online. BMO Women in Leadership Fund (C11) references the holdings of the Barclays Women in Leadership North America Index,⁸ and highlighted the economic benefits of gender-diverse Boards and leadership teams. Ironically, however, C11's benchmark was also a woman-focused fund, and thus less effective in illustrating this point.

3.6 Governance

Content often, but not always, included a profile of the executive team, Advisory Board/Board of Directors and if relevant, Fund Management Committee and their associated credentials. Several angel groups and micro-VC organizations listed regional and deal flow managers. Among explicitly women-focused non-profit and for-profit organizations, the majority of executive teams were "women only." All mainstream small business or innovation support organizations, technology accelerators, or financial institutions retained mixed gender executive and advisory teams.

4 Discussion of findings

This study sought to answer two research questions: In what ways do WFCFs position themselves as a means for facilitating access to financial capital?; and To what extent do digitally-enabled WFCFs extend the tenets of entrepreneurial feminism? The study therefore examines the tenets of entrepreneurial feminism in the context of North American WFCFs. The unit of analysis is capital market investment funds.

To inform these questions, the researchers developed three propositions to guide the content analysis of the Web-based marketing campaigns. Drawing on the



Wikipedia describes MSCI World Index as "... a market cap weighted stock market index of 1649 stocks from companies throughout the world." The index is maintained by MSCI Inc. and is used as a common benchmark for "world" or "global" stock funds intended to represent a broad cross-section of global markets. Accessed 26 June 2018 at https://en.wikipedia.org/wiki/MSCI World.

⁸ The index "... is designed to provide exposure to North American based companies that satisfy one or both of the gender diversity criteria of having a female chief executive officer or having at least 25% female members on the board of directors." BMO (2018, p. 1) Women in Leadership Fund (2017) Annual Management Report of Fund Performance. Accessed 26 June 2018 at https://www.bmo.com/assets/pdfs/gam/a-mrfp/en/A MRFP 912 EN.pdf.

position of women within WFCFs, the study tests the relevance of liberal-individualistic and counter-publics digital democracy (Dahlberg, 2011) as means to build solidarity and communities of practice among under-represented and less privileged entrepreneurs.

Study proposition 1 posited that WFCFs are positioned to increase women entrepreneurs' access to capital. Study proposition 2 posited that WFCFs are positioned to address structural barriers that impede women entrepreneurs' access to capital. Content analysis of the WFCFs found evidence to support both propositions. In some cases, the two propositions were evidenced on same Website page. Individualistic outcomes (study proposition 1) was significantly more likely to be cited as a rationale for market intervention compared to a need to address structural constraints (study proposition 2). Personal narrative dominated the discourse, over calls for institutional or systemic market changes to address occupational stereotypes and discounting of the feminine and feminist within entrepreneurship. The analysis found that women are often positioned within demand-side constraints, such as lacking network contacts, role models, clarity, passion and living up to their full potential. Similarly, from a supply-side perspective, WFCF Websites referred to women investors' need for education or investment knowledge, risk aversion, and lack of confidence.

Paradoxically, the findings provide both optimism and skepticism about the extent to which gender equality anchors feminist entrepreneurial action. Our findings suggest that wealth creation for women may be facilitated by WFCFs through greater visibility and focus. This is an important contribution toward women's economic empowerment. Simultaneously, however, our findings present evidence of the replication of gender stereotypes within WFCF platforms. Further, the majority of WFCFs examined fell short of supporting a broader feminist agenda, that is to employ entrepreneurial action to address institutional barriers that subordinate women entrepreneurs, such as prioriting minority, racilized and other under-represented women, and employing a digital presence to call on mainstream and women-focused small business and innovation support organizations to recruit, engage and fund diverse women entrepreneurs (Orser, Elliott, & Cukier, 2019).

Among most WFCFs, narratives of women entrepreneurs' deficits or deficiencies were used to legitimize gendered market interventions. Ahl and Marlow (2012, p. 544) phrase this positioning as "partial" acceptance or

affiliation of women within "embed prevailing heteronormative assumptions: ...[where] women are positioned in deficit unless they acknowledge and subscribe to a masculinized discourse."

From the standpoint of the counter-publics digital perspective, the findings reveal that some WFCFs sought to address institutional constraints, building communities and linking women entrepreneurs and women investors, and providing educational opportunities for both groups of stakeholders. By inference and, in some instances, by regulatory requirement, investors were positioned as privileged, high net-worth individuals. Our findings show that community building to destabilize hierarchical structures and support marginalized and less privileged entrepreneurs (tenets of entrepreneurial feminism) were, for the most part, implicit or tertiary considerations. In this sense, the positioning of women did not address the opportunity for WFCF digital platforms to mobilize collective voices to contest dominant discourses that frame "hegemonic" practices (Dahlberg, 2011).

Our findings also revealed that when eligibility criteria, other than gender was cited, criteria were most likely to emphasize technology-enabled and advanced technology sectors, sectors in which women-owned businesses are disproportionately under-represented. Only a small number of WFCFs sought to support alterative enterprise structures, such as social enterprises or co-operatives. This positioning serves to further reinforce the masculine paradigm of who is an entrepreneur, and what entrepreneurship consists of. Hence, the findings offer evidence that while digital WFCFs are marketed as supporting the *inclusion* of women, many reinforce gender stereotypes.

It may be that feminist entrepreneurial action must adhere to normative standards of practice in order to challenge the masculinization of entrepreneurship, hierarchical resource constraints, and ultimately to enhance equality for entrepreneurs. Digital platforms may also concurrently enable liberal-individual and counterpublics digital democracy. We now know that these outcomes are not mutually exclusive. Evidence of differentiation in fund types may also be a marker of social progress. Philanthropic (e.g., SheEO, C1) and collective funds (RAISE Collective, C32), for example, were seen to adhere most closely to criteria associated with entrepreneurial feminism (economic as well as social outcomes, such as building communities with an explicit intent to change structural barriers to accessing capital).



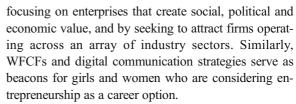
Study propositions 3 (entrepreneurial feminism) emphasizes the opportunity of WFCFs to enhance equity for women entrepreneurs. This infers that WFCSs support both economic and social outcomes. Equity was less evident in the content analysis than the need for women investors and entrepreneurs to gain economic parity. As noted above, the majority of funds focused on financial or wealth-creating outcomes, stressing the business case for supporting women entrepreneurs.

Empowerment was associated with relational interventions such as women-focused networks, training, peer-to-peer mentoring, and digital chat platforms. Discourse emphasized the value and importance of diversity, as defined by gender, race, firm size (micro- and growth-oriented), social enterprise, and financial returns.

From the standpoint of women's empowerment, as measured by investor demographics, it was not surprising that philanthropic and angel groups and micro-VC funds target high net-worth women, rather than economically diverse groups of investors. This is likely for two reasons, the obvious being discretionary capital. Restrictive accredited investor legislation in the USA and Canada also specifies criteria for who qualifies to invest in complex and higher-risk investments, including angel groups and venture capital investments. Generally, accredited investors are highly educated and experienced professionals or cashed out entrepreneurs. This demographic profile differs from the stereotypical feminist organizations dedicated to women's social and economic empowerment and inclusion. Values consistent with entrepreneurial feminism were nevertheless evidenced through digital initiatives to build communities of like-minded women who seek to advance capital and other support to women business owners. As such, our findings reveal that the tenets of entrepreneurial feminism (study proposition 3) were cited as a rationale for market intervention together with economic outcomes (study proposition 1).

4.1 Progress or pinkwashing?

Queried in the study title, WFCFs reflects progress in increasing women entrepreneurs' access to capital and women's economic advancement in the digital era. WFCFs are employing digital marketing to create awareness about the contributions and resource constraints of women entrepreneurs. Most of the WFCFs examined broaden the definition of entrepreneurship by



Some, but not all, WFCFs, adhere to a transformational feminist approach to women's economic empowerment, as described by entrepreneurial feminism (Coleman et al., 2018; Orser & Elliott, 2015), proactively addressing structural causes and economic norms through collective digital agency. They are doing so by creating fiscal space that enables investors and business owners to make strategic choices based on their values and financial capabilities. Hence, some WFCFs are disrupting the status quo of institutional investment by constructing grassroots, communities of interest and by amassing gender-focused investors and growth-oriented women-owned enterprises.

This emerging and digitally enabled capital market appears to be evolving and maturing, through introduction of differentiated WFCFs targeted at young investors (SoGal Ventures, C23, "the first female-led millennial venture capital firm) and minority entrepreneurs. That said, intersectional positioning of women (e.g., non-binary femme entrepreneurs, race), a tenant of entrepreneurial feminist action, is moving more slowly. There remains the need to look beyond traditional White, fe/male or masculine role models of how successful entrepreneurs look like and act.

4.2 Does digital technology extend the tenets of entrepreneurial feminism?

Evidence to inform the second research question, "To what extent do digitally enabled WFCFs extend the tenets of entrepreneurial feminism?" was more ambiguous. Unlike previous research that has examined entrepreneurial feminism in the context of policies to increase women entrepreneurs' access to capital, this study found that gender and entrepreneurial actions focused on individual wealth creation and addressing institutional barriers. Several WFCFs explicitly sought to empower women entrepreneurs by identifying and assembling communities of practice to tackle structural constraints, such as the lack of women investors through the creation of women-focused investment networks, education and training, and digital platforms and online communities. Nevertheless, the analysis also revealed that the vestiges



of the entrepreneurial "deficiency model" persist (liberal feminist perspective to explain gender and entrepreneurship). This messaging is digitally amplified through the emphasis on women's lack of knowledge, networks, and confidence, and by focusing on male-dominated, technology-oriented sectors. The duality in the narrative of women investors and entrepreneurs often occurred within the same WFCF. Furthermore, most funds position women as a homogenous group, negating the intersectional nature of race, ethnicity, gender identity, etc. Few problematized how, through eligibility criteria, WFCFs serve privileged rather than marginalized women entrepreneurs. The findings suggest that entrepreneurial feminist, (action) occurs among both investors and investees. With an increase in market entrants, new WFCFs may seek to differentiate themselves by the degree to which they provide return on investment and enhance inclusion of women entrepreneurs.

4.3 Implications for practice

Several of the WFCFs were positioned to support "diversity" and "equity." Further examination of the funds suggests a need for clarification and validation of these assertions to avoid suspicion of pinkwashing. The BMO Women in Leadership Fund may be illustrative of this point. Positioning of the BMO Women in Leadership Fund (C11), for example, states:

"... companies with a high representation of women in executive leadership deliver: 36.4% Higher Return on Equity¹, 20% Higher Share Price Performance,² 60% Higher Return on Invested Capital³, 84% Higher Return on Sales³, 12.8% Higher Price to Book Vlaue1, Higher Average Growth; and Higher Net Profit Margins." (https://bmoforwomen.bmo.com/hub/posts/invest-with-impact-invest-in-women-4354288)

Examination of fund performance indicated that the fund *under-performed* the benchmark index for North American based companies that meet "gender diversity" criteria. Heightened performance expectations, predicated on select studies that describe a positive association between firm performance and diverse leadership, appears disingenuous. Such positioning diminishes the role of digital technology in supporting women entrepreneurs through potential suspicion about the legitimacy of all WFCFs. Disingenuous commitment to

women's advancement for economic benefit, centering women in promotional content to exaggerate their representation, aggressive promotion of micro, womenfocused programs, and claiming gender expertise without demonstrated compentence and knowledge of gender issues are associated concerns of WFCFs.

Opaque accountability and disclosure standards, and the absence of independent fund evaluations were observed. Content analysis suggests limited transparency may reflect fund novelty (limited competition) and stage of industry maturation, given that most WFCFs are recent market entries. To inform stakeholders, WFCFs are encouraged to post online (easy to find) descriptions about firm ownership, legal structure, management and other fees, and performance outcomes such as, financial returns on investment, social and community impacts, and links to all versus selected investments. These findings suggest the need to establish reporting guidelines, and to monitor adherence to organization mandates and fiscal regulatory policies.

Our findings suggest that pinkwashing was more likely to occur when WFCFs were created as add-ons to mainstream small business and innovation support organizations and programs, rather than as a central element of the organization's mission of supporting women and non-binary femmes. While pinkwashing may be acceptable to some stakeholders, information is needed to make more informed investment decisions. To identify pinkwashing in the digital era, investors and entrepreneurs are encouraged to examine the governance structure of the funds and ask, "Who appears to benefit from the fund and how?" Another strategy is to determine if the fund helps expand the entrepreneurial ecosystem in ways that are likely to benefit women and non-binary femme entrepreneurs, or if the fund serves to perpetuate stereotypes and constraints implicit in the ecosystem.

These observations are consistent with calls for funders and recipient organizations to be held accountable for impacts that extend beyond simplistic, "fix the women" paradigms. The findings align with Ahl and Marlow (2017, p.1) who illustrate within public policy how feminist messaging "is articulated through an aspirational rhetoric of opportunity whilst reproducing gender inequalities." Both studies call for feminist critique of

⁹ Pinkwashing is the antithesis of "whitewashing" (Martinez Dy, Marlow, & Martin, 2017, p. 301) employed by women entrepreneurs of digital enterprises who seek to conceal ethnic or racialized physical appearance by assuming Anglicized names in order to "appeal to a wider market."



response strategies that are positioned or marketed as supporting gender equality among entrepreneurs.

Finally, the study findings suggest that fund design and eligibility criteria are not without consequence. This is evidenced in Business Development Bank of Canada (BDC) Capital Women in Tech Fund (C25). Funded by The Government of Canada, the \$200 million fund is managed by a Toronto-based accelerator (MaRS Discovery District). The fund was promoted as: "... the world's largest venture capital fund dedicated solely to investing in women-led technology companies across sectors" (https://www.bdc.ca/en/bdc-capital/venturecapital/strategic-approach/pages/women-tech-fund. aspx. Accessed 25 June 2018) BDC has stated that the objective of the fund is to "Foster the creation of the next generation of millionaire Canadian women technology entrepreneurs." Eligibility included "women-led" or "... a woman founder, CEO, CTO, CFO or be in a key Csuite position." As such, one woman on a large executive team would qualify. In contrast with a broad definition of women led, firm criteria were onerous:

"A large, definable and defensible market opportunity; minimum viable product and initial market traction; early revenues and an ability to scale; first customer adoption or with revenues and accelerating sales growth quickly; a coachable team; raising a minimum of \$1 million in equity at the seed stage and up to \$10 million at the growth stage."

Only a very small group of women entrepreneurs would meet these criteria which may conflict with the spirit of The Government of Canada (2018, p. 256) budget commitment:

"...reform to federal innovation programs will include a universal goal to improve the participation of under-represented groups, including women entrepreneurs, in the innovation economy. If women entrepreneurs are to become greater participants in the innovation economy, it is crucial that they have fair access to the entire suite of business innovation programming and that potential biases of program administrators are addressed."

As such, WFCF sponsors, such as government, investors and donors, are encouraged to require funds to report on inclusion and economic outcomes, as described above.



4.4 Implications for future research

This study was based on a small sample of WFCFs. Future research might then employ a larger sample to examine subsets of WFCFs, defined by ownership and legal status (e.g., public, private), organizational mandate (e.g., women-focused versus mainstream), longevity (e.g., new entries, serial funds, target markets (e.g., investors, entrepreneurs, minority communities), and desired impacts (e.g., economic, political, social, or environmental). The relevance of WFCFs in developing economy contexts, examined from a feminist economic empowerment and international development paradigm, merits investigation.

Another area of potential academic inquiry is the performance of WFCFs to determine if the message communicated on their Websites is consistent with their actions and social/economic performance. As an example, this study informs the development of certification standards and tentative criteria of a "pinkwashing performance index" to measure the extent to which a WFCF's Web-based claims are evidenced in practice. These are means for encouraging accountability.

A third opportunity for research is the construction and testing of evaluation tools of content analysis from different feminist perspectives (e.g., empirical feminism, entrepreneurial feminism, post-structural feminism). This requires developing a lexicon of words and terms associated with each theoretical framework (for example, see Coleman et al., 2018). Such a tool would serve as a diagnostic for researchers in coding forms of text (e.g., Websites, other written forms of communication).

In conducting this analysis, we observed instances in which a Website's visual content and images appeared to be at odds with textual content. Inconsistencies in messaging suggested that not all content contributors understand the nuisances of gender and systemic barriers, or that the focus on gender or women (non-binary femmes) was not a part of the organization's mission and values. Another opportunity is to examine messages conveyed through online images and texts.

4.5 Study limitations

This study uses content analysis as a means for evaluating the Websites of WFCFs. Content analysis has a

number of benefits, not the least of which is that it can be used to examine Websites that communicate directly with investors and entrepreneurs. At the same time, content analysis as used in this study poses some challenges and limitations. These fall into the categories of completeness, comparability, context, and reliability. In terms of completeness, although WFCFs use Websites to communicate to investors and entrepreneurs, they also communicate in a variety of other ways including news articles, press releases, blogs, conference presentations, and networking events. Thus, WFCFs may use Websites to communicate basic information, while communicating more detailed information through alternative means. Given that the focus of study was the ways that gender is positioned within WFCFs, and the extent to which digitally enabled WFCFs extend the tenets of entrepreneurial feminism, the decision was made to bound data collection based on text extracted from Web-based platforms.

Comparability refers to the degree of similarity between the WFCFs represented in this study (Barringer, Foard, & Neubaum, 2005, p. 681). Although all are similar in that they provide funding to women-owned or women-led firms, our analysis reveals substantial differences in structure, focus, and stage of development. As an example, some are VC funds or angel funds while others are government-sponsored funds or mutual funds. Similarly, some of our funds focus exclusively on women entrepreneurs, while others do not. Some focus on advanced technology sectors, while others have a broader reach. Several funds incorporate a focus on social and/or environmental outcomes. Finally, some funds are managed by sophisticated investment professionals and organizations that have previously launched and managed funds. Others are managed by principals who are new to fund management. There remain significant differences between the sample WFCFs that likely affect what and how they communicate on their Websites. To address this limitation, the research team sought to examine impacts and outcomes. In most cases, this information was not forthcoming.

WFCFs included in this study are drawn from two different populations (Campopiano & De Massis, 2015), in this instance, countries, each with their own financial securities laws and investment regulations. Similarly, although both countries are large, developed economies, and located in North America, there may be social, cultural, and political differences between the two (Chun, 2019). To address this limitation, the

researchers constructed an inventory of similar types of WFCFs across the two countries.

The final category, reliability, refers to the extent to which information and conclusions gleaned through the analysis are valid and reliable (Neuendorf, 2011). To achieve this goal, the research team followed Duriau et al.'s (2007) methodology for coding text and, through an iterative process, constructed a coding Scorecard to increase reliability. Two members of the research team participated in coding, and both coded a subset of scorecards to test for inter-rater reliability.

In addition, for limitations associated with the use of content analysis as a methodology, this study's findings were based on a relatively small number of WFCFs at a given point in time. Further research could address a larger sample, possibly segregated by funding type (for example, venture capital, angel capital, or government-sponsored funds). Similarly, a larger sample would allow researchers to focus on subsets of WFCFs that specialize by geography (USA versus Canada), industry (high tech, health science), or purpose (social and environmental impact).

5 Conclusions

The study contributes new insights about the innovative ways in which private and public funders are employing digital technologies to promote women's economic empowerment through women-focused capital funds. Some, but not all, WFCFs align with the aspirations of the 2017 Women20 (W20, 2017) Summit to enhance digital and financial inclusion for women. WFCFs are helping to increase financial knowledge and decrease structural constraints that limit women entrepreneurs' access to capital. Web-based platforms serve to mobilize high net-worth women and like-minded entrepreneurs, regardless of geographic context. Web-based WFCFs therefore enable women to increase their access to capital, and ultimately creditworthiness by constructing alternative risk assessment profiles, and developing non-traditional capital market interventions.

The study findings present evidence of the evolution of feminist entrepreneurship practice within North American capital markets. Men and women are employing gender lenses to assemble pools of capital, and invest in women-owned (led) ventures. Some WFCFs employ earnings to educate women about equity investment in order to mobilize their assets in



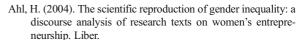
supporting women entrpreneurs. Some WFCFs offer advice and mentorship to those ventures that do not receive capital under mandates to support women founders in developing their business model, enhancing market legitimacy and building industry networks. WFCFs employ social media to heighten awareness about institutional lending practices that dissuade some women from seeking traditional (bank) finanancing, and potential gender biases in founders' perceptions of lending (discouraged borrowers), and investor practices. The latter include a low representation of women in equity investment firms and macho industry culture. In instances, this has encouraged traditional lenders to invest in WFCFs, and to leverage their market presence to enhance the visibility of WFCFs. In Canada, for example, BMO has provided capital to SheEO (Nelson, 2015). Scotiabank has invested in Disruptive Ventures (Wong, 2019).

The study also contributes to the literature by extending the relevance of entrepreneurial feminism to the context of North American capital markets. From a theoretical perspective, the study also informs the tenets and limitations of entrepreneurial feminism. There remains a gap between critical theory versus common practice. From a practical perspective, the findings suggest an immediate need for reporting standards, and enhanced transparency with respect to fund ownership structure, performance and impacts. This is to ensure legitimacy of an evolving source of women-focused investment capital in the digital era. Finally, this study contributes to our understanding about the structure of WFCFs, including rationale, types of capital and anticipated outcomes, criteria to inform the construction, and evaluation of WFCFs.

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