Chapter 14
Exploring How Women Entrepreneurs Use Technology for Idea Generation

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ABSTRACT

The study explores the relationship between the extent of use and access to emerging technology in business by women entrepreneurs and the different characteristics that may trigger generation of business ideas. The study was conducted through use of an interpretive scale of how women entrepreneurs use emerging technology. Several research questions were answered, including: "Do demographic characteristics play a role in knowing and using emerging technology?"; "Are there differences between the extent of use of emerging technologies and different entrepreneur women characteristics?" and "Is there a possible predictive model of idea generation and business formation, as measured by use of technology overall item mean score?"

INTRODUCTION

Entrepreneurship is for many years identified as a significant part of the United States economy (Carland, Boulton, & Carland, 1984). It is estimated that 20 to 40 percent of the overall labor productivity growth in the eight major industrialized countries can be directly attributed to entrepreneurship (Berglann, Moen, Roed, & Skogstrom, 2011). Today, technology, innovation and entrepreneurship are crucial to the nation's economic revival and competitiveness in the global marketplace (Sargeant & Moutray, 2010). In the global stage, entrepreneurs perform different functions such as bearing the risk of market uncertainty, innovation, competition and restructuring, and generating new knowledge to the economy (Sternberg &Wennekers, 2005). Because of these contributions to economies, most governments around the world are creating policies that govern and boost entrepreneurship at all levels (Gilbert, Audretsch,

& McDougall, 2004). As the area of entrepreneurship has grown the number of women entrepreneurs has increased as well. In the United States, the number of women entrepreneurs increased over 50% by 2012 which is twice the national average (20%) (Womenable, 2015). Between 2002 and 2012, women entrepreneurs launched an average of 928 net new firms each day, greatly increasing the number of women privately held firms (Center for Women's Business Research, 2009; Womenable, 2015). On the global scale, higher Total Entrepreneurial Activity (TEA) levels can be seen among women (Kelley, Brush, Greene & Litovsky, 2013). In Sub-Saharan Africa and Latin America/Caribbean, Total Entrepreneurial Activity for women entrepreneurship is 27% and 15%, respectively; while Asia and Europe shows a 4% and 5% rise, respectively (Kelley et al., 2013). As the number of women entrepreneurs has significantly increased it is necessary to understand their participation in the field of entrepreneurship. Growth in entrepreneurship has coincided with the growth in the use of technology. For an entrepreneur to be competitive in the new age economy, they have to be in a position to exploit new technologies that will form the basis of tomorrow's global information networks and ideas built on *e*-commerce (Kowalczyk, Ulieru & Unland, 2003). The first contact in business ideas and motivation to start a business may begin with the use of such technologies as the internet, online social media and/or smartphone devices. There are approximately 74.4% American households that have internet; for those who use the internet, 78.5% are male and 77.6 are female (File & Ryan, 2014). As this use of technology grows globally, coupled with the ever increasingly role of women entrepreneurs, (Ndubisi, 2007) research on how technology use and entrepreneurial activity interact is necessary. Previous studies have explored both the influence that the external environment has on motivating women entrepreneurial startup businesses and reasons why a business fails or succeeds (Aldrich, 1999; Sandberg, 1986). However, research on how environmental factors such as emerging technology shape the decisions of women entrepreneurs before the business starts remain unknown. To explore this, the study looks at the use of emerging technology as one of the external environmental factors that influences the decision to start a business. The purpose of this study is to explore if the use of emerging technology by women entrepreneurs influences a generation of business ideas and business formation.

Emerging technologies in this study refers to high performance computing platforms such as the World Wide Web, virtual reality, social media, and communication gadgets such as smart phones (Dede, 1996).

LITERATURE REVIEW

Over the past decade, there has been considerable growth in women entrepreneurship. According to the American Express OPEN report, the number of women entrepreneurs in the United States has increased by 50% from 1997 to 2011; this resulted in an estimated 8.1 million women-owned businesses, generating nearly $1.3 trillion in revenues and creating employment for nearly 7.7 million people (Alfonso, 2011). Women entrepreneurs in the U.S. are also known to have greater levels of involvement in business services compared to women in other countries (Kelley et al., 2013). However, the growth in women entrepreneurship is not unique to the United States. Global research indicates that one-third of women are more likely to start businesses out of necessity than men. In six economies (Vietnam, Philippines, Thailand, Malaysia, Peru and Indonesia), women show equal or higher entrepreneurship rates than men (Kelley, Singer & Herrington, 2016). Despite the great strides made by women entrepreneurs more progress is required for sustainable entrepreneurial growth.

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