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Other articles completed in order to meet the dissertation requirements include:

Article #1: What drives best practices financial behavior? A longitudinal analysis of the Financial Industry Regulatory Authority's National Financial Capability Study
Participating Authors: Donald Lux & Laura Kauzlarich

Article #2: Intimate partner violence and "Triple Jeopardy": A search for answers
Participating Authors: Laura Kauzlarich, Regina Taylor, & Michelle Greenwood

All articles have received approval.

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WORKING TOWARDS (IN)EQUALITY: A SOCIAL CONSTRUCTIONIST FEMINIST PERSPECTIVE ON THE IMPACT OF GENDER AND HOUSEHOLD SIZE IN THE GLOBAL ENTREPRENEURSHIP MONITOR (GEM) DATA ON ENTREPRENEURIAL DECISIONS AND MOTIVATIONS

A DISSERTATION

Submitted to the faculty of the Graduate School of the Creighton University in Partial Fulfillment of the Requirements for the degree of Doctor of Business Administration in the Heider College of Business

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ABSTRACT

Through an explicit feminist lens, this paper examines the roles of gender and household size in both choosing to be an active early-stage entrepreneur in general and also in choosing to be an opportunity-driven entrepreneur versus a needs-based entrepreneur. Rather than highlighting the differences between women and men with regard to gender and household size, this study hypothesizes that those factors are insignificant to those decisions. The complete 2015 Adult Population Survey of the Global Entrepreneurship Monitor is the data source for this analysis. The results indicate that even though gender is statistically significant in both regression models, that variable does not provide any explanatory power in predicting either the choice to be an active early-stage entrepreneur nor in choosing to be an opportunity-driven entrepreneur. Household size is not a significant variable in either regression. Further discussion centers on the inadequacy of relying on statistical significance alone in regression models when interpreting results and on the importance of incorporating explicit feminist perspectives to better understand the phenomenon of women's entrepreneurship. Recommendations for future research also include incorporating additional structural and contextual variables and mixed research methods into the study of women's entrepreneurship to gain additional insight into both household dynamics and the macro and meso environments in which women's entrepreneurship operate.

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INTRODUCTION

There is little debate than in terms of absolute numbers the number of women engaged in entrepreneurship has dramatically increased in recent decades and they make significant contributions to innovation and wealth creation in all economies (Brush et al, 2006; Elam et al, 2019). Clark-Muntean and Ozkazanc-Pan (2016), however, argue that what initially seems to be a positive step forward on the surface of women's entrepreneurial trends may actually replicate and deepen the existing social norms that serve to hold women in a position of economic inequality. Without consideration of the problematic gendered assumptions implicit in societal and entrepreneurial norms, the existing extant research focuses almost exclusively on simply the differences between the genders and on the positive impact the presence of women in business and entrepreneurial spaces provides (Nath et al, 2013). The reality, however, is that women and men are positioned from vastly different vantage points both in society and in entrepreneurship. While women are often the intended beneficiaries of entrepreneurial ownership, activity and research and indeed reflect positive economic and participatory outcomes, this result may not hold in the long run if in the process societal norms are merely reinforced and replicated.

Feminist perspectives are rarely invoked explicitly in the women's entrepreneurship literature, and yet are vital towards the inclusion of societal and contextual factors inherent to the comprehensive experiences of women in this domain. Ahl (2006) and Ahl and Marlow (2012) argue that research on women's entrepreneurship is dangerously close to a "dead end" unless gender is increasingly conceptualized in research design as a theoretical lens rather than simply as a variable. Further deficiencies

cited by Ahl (2006) in women's entrepreneurship study are numerous and include the findings that the overall entrepreneurship research domain is heavily male-gendered, the vast majority of studies on women's entrepreneurship are focused on women as a tool for economic growth, women and men are presumed to be essentially different and the vast majority of studies search for mean differences between women and men, family is construed as an impediment for women towards entrepreneurial pursuit and the theoretical bases for these studies are generally weak (also Hughes et al, 2012). This paper will examine the impact of gender and household size on two fundamental entrepreneurial decisions using an explicit feminist lens as the starting point.

The source of data for this analysis is the complete 2015 Adult Population Survey (APS) of the Global Entrepreneurship Monitor (GEM). In their bibliometric analysis of the peer-reviewed research focused upon gender using the GEM data, Sanchez-Escobedo et al (2016) report that gender-focused GEM peer-reviewed research is still in its initial stages, is stagnant in research quantity and has rarely been published in any top entrepreneurship or management journals. The overall state of women's entrepreneurship academic research is categorized by Hughes et al (2012) as being in the early stages and perhaps only on the "brink of adolescence." Brush, de Bruin & Welter (2009) assert that women's entrepreneurship study cannot meaningfully move forward without either widely expanding the constructs with which women's entrepreneurship is studied or by creating an entirely separate theory for women's entrepreneurship. In combination with the research deficiencies prevalent throughout the study of women's entrepreneurship cited by Ahl (2006) and her valid concerns that knowledge accumulation in the study of women's entrepreneurship is nearing an end under the current research assumptions and

drivers, it is time to step back and question some previously fundamental assumptions. Does gender matter? Does household size matter? This paper hypothesizes that indeed they do not matter to either the decision to become an active early-stage entrepreneur nor to the decision to become an opportunity-driven versus needs-based entrepreneur. These are important questions to reevaluate for future of study of women's entrepreneurship given the concerns raised in recent critique.

The results of this analysis support all four hypotheses. While gender is found to be statistically significant for both the decision to become an active early-stage entrepreneur and for the motivation to become an opportunity-driven entrepreneur versus a needs-based entrepreneur, it does not add any explanatory power to the models. The conclusion that gender can consequently be construed as irrelevant despite being statistically significant is then defended both with arguments put forth by both statistical analysis critiques and women's entrepreneurship scholars. Household size was not significant in either model.

This paper is both important and timely for additional reasons. First, the Sustainable Development Goals (SDGs) created by the United Nations initiative in 2015 includes Goal #8: Decent Work and Economic Growth. Widespread implementation efforts towards the 17 SDGs began in 2016 with a target global completion date of 2030 (www.sustainabledevelopment.un.org). The overriding goal of this initiative is to "promote *inclusive and sustainable* [emphasis mine] economic growth, employment and decent work for all." Of note, for the vast majority of the world's population, having a means of employment income doesn't guarantee the ability to escape from poverty and this reality led the UN to rethink and retool the underlying assumptions about our

economic and social structures. The basic social contract underlying democratic societies is that *all must share in progress,* and the UN reports that despite increasing participation by women in the paid workforce, they continue to do 2.6 times the unpaid domestic and care work globally as compared to men. Women do not currently share equally in economic progress in most countries in the world, and women's entrepreneurship is no exception.

Further SDG goals include Goal #5: Call out sexist language and behavior towards gender equality. The UN notes that women and girls continue to experience violence and discrimination in every part of the world. Many industries in the United States alone remain predominantly masculine, including entrepreneurship, with strong cultures of sexual harassment and exclusion of allocation of needed resources for women (e.g.. technology entrepreneurship Ozkazanc-Pan and Clark-Muntean, 2017; venture capital Guzman and Kacperczyk, 2019).

Finally, SDG Goal #10 asks us to raise our voices against discrimination towards reduced inequalities both within and between countries, with an eye particularly upon the needs of social classes and for women who remain systemically disadvantaged and marginalized. Economic growth is not sufficient to reduce poverty unless it is all-inclusive and speaks to both the social and economic needs of the marginalized populations and is required for a peaceful, sustainable planet. Thus three of the seventeen global SDG goals relate directly to this topic, and several of the other goals could arguably be said to relate indirectly to this area of inquiry.

This paper makes several contributions to the existing literature on women's entrepreneurship. First, this is the first paper to examine the GEM APS dataset through an

explicit feminist lens. It is also one of few papers to approach an empirical analysis in women's entrepreneurship overall through a feminist lens (for exceptions please see Clark-Muntean & Ozkazanc Pan, 2016; Yadav & Unni, 2016; Eddleston & Powell, 2012). Second, the 2015 GEM APS dataset is considerable in both size and scope and thus the results drawn from this study are based upon a large and comprehensive sample. Third, this paper both questions previous assumptions and contributes to our understanding of the roles gender and household size play in the decisions to both become an active early-stage entrepreneur in general and to become an opportunity-driven entrepreneur versus a needs-based entrepreneur.

The remainder of this paper is structured as follows. The second section of this paper introduces the feminist theoretical perspective and then proposes four hypotheses based upon that theory. The third section describes both the dataset and the methodological approach to the analysis. The fourth section reflects the results of this analysis. The fifth section entails a discussion of the results including both a discussion of the proper interpretation of the empirical results and the importance of including a feminist lens in the debate. The final sections discuss the limitations and conclusion to the study and recommendations for future research.

THEORETICAL FRAMEWORK & HYPOTHESIS DEVELOPMENT

Feminist Origins

Second wave feminism originated with Margaret Benston's (1969) seminal piece on women's liberation. Benston asserted that women were not only discriminated against, but were widely exploited for the benefit of and profit underlying support for capitalism.

Where “value” is determined by allocation of monetary resources, women primarily work outside the scope of the market of societal value. As stated earlier, women still currently bear the 2.6 times the burden of the amount of unpaid domestic and care work as compared to men (United Nations, 2015). While women do increasingly labor in exchange for (often also underpaid) wages in the public productive market, they continue to be primarily responsible for unpaid private and domestic labor and thus often carry a double work-load in their efforts towards economic equality. The amount of unpaid labor performed by women is thus highly profitable to those who own the means of production. Industrialization itself is conceptualized as a beneficial force for human good and care, but exploitation of unpaid (and underpaid) labor is associated with capitalism. In sum, the capitalist system depends upon the devaluation of domestic labor and care tasks, a domain that remains primarily the responsibility of women, to operate as it does. Industrialization is not the source of the inequity; the structural underpinnings of capitalism are.

Commane (2010) more recently argued that patriarchy and capitalism then combine to exacerbate the oppression of women in modern society. Patriarchy, by definition, is a coherent system that shapes all aspects of life via language, kinship, stereotypes, religion and culture towards the objectification of women by men. Pervasive characteristics of systemic patriarchy include (1) the overexploitation of women in the workplace and domestic realm, (2) a domination characterized by the absence of rights whereby “natural” differences are exaggerated in society, (3) a domination accompanied by a range of acceptable societal and personal violence (psychological, physical, moral, #metoo, etc), (4) a discourse whereby social inequalities are represented as “natural” and

inherent to the social classes, and (5) a culture whereby these social identities are deeply impressed upon and internalized by the oppressed and only in reference to the dominant class who speaks for humanity as a whole. This results in a social mapping where those who are marginalized by the combined effect of patriarchy and capitalism feel it is simply their "place" in the natural order of society and cannot be changed.

Capitalism, then, with its propensity to organize the economy and social systems for its own benefit and profit, can be conceptualized as interacting deeply with the underlying system of patriarchy to justify policies whereby successful organizations find it more profitable to shift the burden for social welfare and progress from the state to individuals and private households. Social progress and well-being then become the domain of an already marginalized and oppressed class (ie. women) that then bears the sole responsibility of shifting the quest towards equality in their favor in the face of powerful interlocking systems of patriarchy and capitalism that have assigned women the role of reproducing the existing labor force and societal norms. It is in this context that women continue to aspire to economic and participative equality in entrepreneurial pursuits.

Gendered Entrepreneurship

Entrepreneurship in general is best understood in the context of a masculine narrative even though most research in the field yet relies upon "gender-neutral" and "gender-blind" theorizing, often focusing in positivist fashion on the empathy and soft skills and societal benefits women bring to the entrepreneurial and social responsibility spaces. Entrepreneurs are frequently described as strong, heroic, ambitious, courageous

and enterprising – describing a distinctly masculine engagement (Ahl, 2006). Yet, the assumption is still made that all entrepreneurs have equal access to the resources, participation and support for successful entrepreneurial outcomes, and this is not always the case (Brush et al, 2018).

Critical perspective scholars in particular have questioned the foundational assumptions of the entrepreneurship field (Peredo and McLean, 2006) and this paper continues along this line of inquiry. Gender and domestic demands are therefore central in this alternative paradigm to understanding the field of women's entrepreneurship more comprehensively and advancing our understanding of the roles gender and household size play in advancing towards economic and participative equality rather than replicating existing societal norms and structures (Gawell and Sundin, 2014).

There is, of course, women's entrepreneurship research that highlights the fact that women often choose to be silent and even seek to conceal the gendered nature of the entrepreneurial realm to avoid being identified as different from the masculine norm (Lewis, 2006). Other women struggle to even identify themselves as entrepreneurs and encounter role models let alone entrepreneurial models and mentors (Orlandi, 2017). Du Rietz & Hendrickson (2000) note that women's businesses tend to be smaller, grow more slowly and be less profitable than men's businesses and refer to this as the "female underperformance hypothesis," but they also note that these results are often a function of research design in a field that overemphasizes masculine traits both in analysis and in the measuring instruments. Other examples of differences attributed to women with regard to entrepreneurial endeavor include having a psychological makeup that is less entrepreneurial than a man's (Zapalska, 1997; Sexton & Bowman-Upton, 1990), having

less motivation for growth of their businesses (Buttner & Moore, 1997; Fischer et al, 1993), having less desire to start a business (Kourilsky & Walstad, 1998; Carter & Allen, 1997) and perceiving other women as less cut out for the role of entrepreneurship (Fagenson & Marcus, 1991). But are these assumptions and conclusions correct?

Based on her discourse analysis of 81 research articles on women's entrepreneurship published between 1982 – 2000 in four leading entrepreneurship research journals, Ahl (2006) uses a social constructionist feminist perspective to address the deficiencies in academic research on women's entrepreneurship, including a noted lack of explicit feminist analysis. Feminist theory overall can be categorized into three distinct groups. The first group sees women and men as essentially similar. Liberal feminist theory is categorized in this group. Women and men are perceived as equally able and thus any unequal participation by women must be due to discrimination or unequal access. The prescriptive solution for women under this lens is for women to adapt to the existing order of society (Calas & Smircich, 1996). The second group sees women and men as essentially different but does not question the male norm. Social feminist theory, psychoanalytical feminist theory and radical feminist theory are included in this group. Here feminine traits are construed as benefits rather than as weaknesses but the repertoire of both sexes is viewed as limited (Chodorow, 1988; Gilligan, 1982). The third group is not concerned with what women and men are biologically but rather with how masculinity and femininity are socially constructed and how that social order is maintained through the recreation or repetition of gender. No assumptions are made through this lens that women and men are fundamentally "different." Social

constructionist and poststructuralist feminist perspectives are included in this group (Butler, 1990, 1993).

Discursive analysis, the methodology used by Ahl, looks to the foundational texts in academic entrepreneurship research and examines the assumptions that go unquestioned. Because women's entrepreneurship research often holds certain assumptions about business, gender, family, society, the economy and the individual, this heavily influences the research questions that are pursued and the way their results are interpreted. Ahl's discursive analysis of the foundational texts found significant evidence that the academic field of entrepreneurship is heavily male-gendered and that women are presumed to be significantly different than men with regard to entrepreneurship endeavors.

Ahl (2006), consistent with her preferred social constructionist feminist approach, argues that men and women are fundamentally the same and differences in choices and economic success between women and men are due to social context and access to resources and that research focused on generating differences between the sexes results in a binary polarization between groups of individuals that completely ignores the societal context and power relations of what constitutes masculinity and femininity. She contends that meta-analyses of psychological research on the differences between men and women show that the differences between individuals, even within the same sex, are invariably much larger than the average difference, if any, between the sexes. This means that if one were to plot the test results of the differences between individuals on a normal distribution curve, the curve for women and the curve for men would largely, if not entirely, overlap. In her discursive analysis, Ahl notes that despite the hypotheses testing,

few (if any) differences were found between the genders and when controlling for structural factors there was no evidence at all of womens' underperformance. There was more variance within each individual gender than the average differences between the sexes (DuRietz & Henreckson, 2000; Watson, 2002). Despite pervasive empirical results suggesting that there were no significant differences between women and men, the notion that gender differences exist was so pervasive that many authors sought to explain away their results in favor of the assumption that men and women are fundamentally different with regard to entrepreneurial disposition and success (Olson & Currie, 1992; Buttner, 2001). Hence, this analysis will test the following hypothesis:

H1: Gender will not be a significant factor in choosing to be an active early-stage entrepreneur.

While small and home-based business ownership appears to provide a valuable opportunity for women to flexibly combine economic pursuits with domestic care responsibilities, Thompson et al (2009) determined not only that women without access to entrepreneurial resources were more likely to start small and home-based businesses, but that they were also more likely to work at them only on a part-time basis as they balanced their work-life demands. Disadvantages of starting small or home-based businesses designed to accommodate domestic responsibilities include the constrained growth inherent in using the home as the business location and the lower level of hours committed to running the business which combine to produce marginal ventures that are unlikely to either grow or even survive. This type of argument, however, yet remains firmly grounded in comparing women's experience of entrepreneurship to that of men.

Brush, de Bruin and Welter (2009), alternatively, propose a gender-aware framework for studying women's entrepreneurship. They argue that despite the increased

importance of the pursuit of women's entrepreneurship, they remain vastly understudied and that positivist research serves only to perpetuate the gender gap in academic research. Traditional entrepreneurship theory organizes successful venture creation around individual access to markets, money and management (the 3Ms). Brush, de Bruin and Welter add "motherhood" and the "macro/meso environment" to the 3M Model to create a 5M Model for the purpose of better analyzing and understanding the context of women's entrepreneurship. Their framework begins with the premise that all entrepreneurship is socially embedded and the "motherhood" term is a metaphor to represent that socially embedded household/family context and is placed at the center of their model. The household context often plays a key role in explaining economic differences. For example, gender differences in labor market outcomes were found to be better explained by household characteristics than by other explanations including individual characteristics and gender discrimination (Dimova et al, 2006).

Again in her discursive analysis, Ahl (2006) notes the current women's entrepreneurship literature typically positions family as an impediment to successful entrepreneurial pursuit and family as positioned as outside and separate from the business endeavor. There is a striking contrast between the way that family issues and dynamics are construed in women's entrepreneurship literature whereas these discussions are largely absent in general entrepreneurship research. Within women's entrepreneurship studies, it is taken for granted that the family and other domestic demands are perceived as the woman's responsibility. Given that the overriding assumption is that family and domestic demands are the woman's responsibility, and that the greater the domestic demands are, the greater the conflict, this study will reexamine that assumption:

H2: Household size will not be a significant factor in choosing to be an active early-stage entrepreneur.

In the GEM, entrepreneurial endeavors can be dichotomously categorized according to the motivations and anticipated growth and impact of those ventures. The distinction is made in the literature between opportunity-driven and needs-based entrepreneurship (Fairlie & Fossen, 2017). The GEM survey was the first study to make the distinction between opportunity-driven and needs-based entrepreneurship. The primary divide between these two types of entrepreneurship is that opportunity-driven entrepreneurship happens when a business creator identifies an opportunity in the market and acts upon it despite other compelling alternatives. Needs-based entrepreneurship happens when an entrepreneur has no better options for work or to accommodate other needs or demands in their life (ie. work-life balance). This is a controversial topic as some entrepreneurship scholars only categorize opportunity-based entrepreneurs as "true" entrepreneurs. This study will therefore focus upon the roles of gender and household size on the motivations and decision to become an opportunity-driven entrepreneur.

H3: Gender will not be a significant factor in choosing opportunity-driven entrepreneurship versus need-based entrepreneurship.

H4: Household size will not be a significant factor in choosing to be an opportunity-driven entrepreneur versus a needs-based entrepreneur.

DATA & METHODOLOGY

The Global Entrepreneurship Monitor (GEM), established in 1997, is the largest single effort to systematically and consecutively study the prevalence, determinants and consequences of entrepreneurial intent and activity in the world. The original intent of the survey was to provide a database to study the relationship between economic growth and

entrepreneurship (Reynolds, Hay, and Camp, 1999) and provide evidence-based data for policy decisions (See Reynolds et al, 2005 for a complete detailed description of the GEM methodology and data). Comparable data is now collected annually in over 60 countries worldwide at a minimum participation rate of 2,000 individuals per country but is collected for policy-decision reasons and not to test any particular theoretical assertion. The data set has been used, however, in over 200 peer-reviewed journal articles and continues to provide data to advance the academic entrepreneurship knowledge (for examples please see Fairlie & Fossen, 2017; Nissan et al, 2012; Serida and Morales, 2011; Pinillos and Reyes, 2011).

The comprehensive GEM includes three primary sources of data: (1) the Adult Population Survey (APS) contributes standardized data on entrepreneurial attitudes and activities in each country, (2) the National Expert Survey (NES) uses standardized questions to investigate the national framework for entrepreneurial conditions, and (3) qualitative face-to-face interviews are conducted to provide additional insight into the strengths, weaknesses and realities for entrepreneurs in each country. The primary construct of the GEM data is the percentage of Total Early-Stage Entrepreneurial Activity (TEA) reported for each country which measures the percent of the population both about to start an entrepreneurial endeavor (individuals with entrepreneurial attitudes potentially leading to entrepreneurship) or who have started one within the previous 3-1/2 years (current early-stage owners-managers). The APS data is the most widely used data-source in the peer-reviewed literature (Bergmann et al, 2014) and is the source of data for this paper.

This analysis is conducted by analyzing the measures of current owners-managers of a startup and of opportunity-driven versus needs-based entrepreneurial motivations among men and women in the APS data. The measure of a current owner-manager of a business is measured by the response to the question "Are you, alone or with others, currently the owner of a business you help manage, self-employed or selling any goods or services to others (< 3.5 years)?" Opportunity-driven and needs-based entrepreneurial motivation in the GEM data is also determined by the answer to one question: "Are you involved in this start-up to take advantage of a business opportunity or because you have no better choices for work?" The availability of micro-level data is one of the major advantages of the GEM project and both the decision to actively become an early-stage entrepreneur and the choice to become an opportunity-driven entrepreneur serve as the dependent variables in this analysis.

The dataset does inherently include several conditions which are relevant to this particular study. The questionnaire is relatively short and includes short responses to questions (i.e. yes/no) to encourage completion rates and eliminate cultural bias in the responses. The nature of GEM data does allow for collecting additional data on the survey, but very few countries have taken advantage of this possibility. This omission is likely because the research teams in the individual countries have to bear the expense for administering the surveys. It is possible for a researcher to add macro level data to the GEM data, but it is not possible to add micro-level data. The GEM data does not include data on ethnicity in its standardized format. Bergmann et al (2014) note the potential for significant contributions to entrepreneurship research with the addition of additional data to the standardized format, but this has not yet occurred.

I have used the 2015 Adult Population Survey for my analysis as datasets are not available to the public until several years later and this is the most recent dataset available. Only those respondents who responded with "yes" to the question of whether they were current owners-managers of a business were included as active early-stage entrepreneurs. Consistent with Bergmann and Sternberg (2007), this analysis only considers those founders to count as opportunity-driven entrepreneurs who explicitly respond "to take advantage of a business opportunity" as the reason for their entrepreneurial pursuit and classifies all other responses as needs-based entrepreneurship. This decision has been made because it is believed that people are highly unlikely to report sole necessity-based entrepreneurship as the primary reason for their actions and thus all other categories of mixed responses are classified as needs-based entrepreneurs. This approach makes the assumption that it is highly socially desirable to launch a firm to pursue a good business idea, and it is socially undesirable to admit that one has chosen self-employment for lack of better alternatives. Previous research has indicated that approximately 90% of all entrepreneurs choose either "to take advantage of a business opportunity" or "no better choices for work" as their motivation for being an entrepreneur, approximately 7% can be classified into one of those two categories by further narrative during the interview process, and approximately 3% report mixed motivations for their entrepreneurial engagement (Reynolds et al, 2005).

While being the current owner-manager of an early-stage startup and being an opportunity-driven entrepreneur are the dependent variables in this analysis, gender and household size are the independent variables in the model. Gender is classified as either women or men with women being coded as 1 and men being coded as 0. Household size

is a continuous variable reflected in the number of members in the household. Consistent with previous studies (ie. Langowitz & Minniti, 2007), control variables include a number of both sociodemographic and perceptual variables. Sociodemographic control variables include current age (a continuous variable in years), country group (a categorical variable classified as factor driven, transitioning between factor driven and efficiency driven, efficiency driven, transitioning between efficiency driven and innovation driven, and innovation driven), household income (a categorial variable coded as bottom 33%, middle 33% or upper 33%), educational attainment (a categorical variable coded as none, some secondary, secondary degree, post secondary or graduate experience) and work status (a categorial variable coded as full time, part time, retired/disabled, homemaker, student or not working). Perceptual control variables include the respondent's perceived entrepreneurial network and/or role models, current opportunities, knowledge and skills and fear of failure. The entrepreneurial network and/or role models is measured in response to the question "Do you know someone personally who started a business in the past 2 years?" and is coded 1 for yes and 0 for no. Current perceived opportunities are measured in response to the question "In the next 6 months, will there be good opportunities for starting a business in the area where you live?" and is coded 1 for yes and 0 for no. Entrepreneurial knowledge and skills are measured in response to the question "Do you have the knowledge, skill and experience required to start a business?" and is coded 1 for yes and 0 for no. Fear of failure is measured in the response to "Would fear of failure prevent you from starting a business?" and is coded 1 for yes and 0 for no.

The total number of individuals surveyed in the 2015 GEM APS Survey was 181,281. The total number of usable responses for the analysis of current early-stage entrepreneurs was 119,040 including 61,100 men and 57,940 women. 19.5% of those surveyed in the usable sample were classified as current early-stage entrepreneurs including 13,733 men and 9,532 women for a total of 23,265 individuals. The total number of usable responses for the analysis of entrepreneurial motivation between opportunity-driven and needs-based was 15,677 including 9,317 men and 6,360 women. 45.9% of all entrepreneurs in the usable sample were categorized as opportunity-driven entrepreneurs including 4,441 men and 2,761 women. See Table 1 (Appendix) for a complete listing of the descriptive statistics of the sample.

[Insert Table 1 here]

The aim of this paper is to evaluate the roles of both gender and household size in the decision to both become an entrepreneur in general and the motivations to pursue opportunity-driven entrepreneurship versus needs-based entrepreneurship. The GEM data has the advantage of being available at the micro-level and thus the start-up decisions in this analysis are made at that level. The dependent variables in our analysis have only two possible values. To analyze the role of gender and household size on the decision to become an active early-stage entrepreneur in general, a person who is currently the owner or manager of an early-stage startup is coded as 1 and a person who is not currently the owner or manager of an early-stage startup is coded as 0. To analyze the role of gender and household size on the decision to become an opportunity-driven entrepreneur, a person who has indicated that they were motivated to start their business “to take advantage of a business opportunity” were coded as 1 and all other responses (no better

choices for work, combination of both of the above, have a job but seeking better options and other) were coded as 0 as described above and as previously categorized by Bergmann and Sternberg (2007). I then test the influence of the independent variables of gender and household size on the two dependent variables: the decision to become an active early-stage entrepreneur and the motivation to pursue entrepreneurship to pursue a business opportunity. A logit model is used that is suitable for binary dependent variables and the analysis was run in SPSS Version 26. Four stepwise regressions were run for each of the two analyses. The first model includes only the sociodemographic control variables, the second model includes the sociodemographic plus the perceptual control variables, the third model adds the independent gender variable and then finally fourth model adds the independent household size variable.

RESULTS

The first two hypotheses examine the role of gender and household size on the decision to become an active early-stage entrepreneur. The results of this analysis are found in Table 2 (Appendix). The first hypothesis asserts that gender will not be a significant factor in choosing to be an active early-stage entrepreneur. With regard to Hypothesis 1, gender is statistically significant ($p < .001$) in both Models 3 and 4 with a coefficient of -.134 (odds ratio = .875) indicating that men are more likely to pursue entrepreneurship in general than women when we control for all the sociodemographic and perceptual variables. An important point to emphasize, however, is that even though the gender independent variable is statistically significant, it does not add any explanatory power to the model. The Nagelkerke pseudo-R2 remains constant at .348 for

Models 3 and 4 as compared to Model 2. In sum, a person's gender does not add any explanatory power to the model and in that sense is arguably insignificant. Therefore, while Hypothesis 1 is not technically supported in this model, gender does not add anything to our understanding of the factors that explain the decision to become an active early-stage entrepreneur. The household size independent variable is not statistically significant in Model 4 and thus Hypotheses 2 is also supported.

[Insert Table 2 here]

The second two hypotheses examine the role of gender and household size on the motivation to pursue opportunity-driven entrepreneurship. The results of this analysis are found in Table 3 (Appendix). With regard to Hypothesis 3, gender is again statistically significant ($p < .05$) in Models 7 and 8 with coefficients of .075 and .076 respectively (odds ratios = 1.078 and 1.079) indicating that women are slightly more likely to choose opportunity-driven entrepreneurship as their motivation than men when we control for the sociodemographic and perceptual variables. Again, however, while the independent gender variable is statistically significant, it adds no explanatory power to the model. The Nagelkerke pseudo-R2 changes only slightly from .063 in Model 2 to .064 in Models 3 and 4. Therefore, while Hypothesis 3 is technically not supported by the statistically significant results for the independent gender variable, again gender provides no explanatory power to understanding what factors drive the motivation to choose opportunity-driven entrepreneurship as compared to need-based entrepreneurship. Consistent with the results for Hypothesis 2, household size is again not statistically significant in this model and Hypothesis 4 is therefore supported.

[Insert Table 3 here]

It is interesting to compare the results for Models 1 – 4 with the results for Models 5 – 8. While nearly all categories of the sociodemographic and perceptual control variables are statistically significant on the decision to become an active early-stage entrepreneur (with the exception of the impact of post-secondary and graduate school experience), this is not the case for the motivation to choose opportunity-driven entrepreneurship versus needs-based entrepreneurship. Graduate school experience is again insignificant, but so also is age, work status and several categories of the country group classification.

It should be noted here however that it could be perceived in comparing Models 1 – 4 with Models 5 – 8 that there is considerable difference between the explanatory power of the model to be an active early-stage entrepreneur and the explanatory power of the model describing the motivation to become an opportunity-driven versus need-based entrepreneur. The sociodemographic and perceptual control variables alone in the decision to become an early active-stage entrepreneur result in a Nagelkerke pseudo-R2 of approximately 35% (Model 2) and are consistent with prior literature (ie. Langowitz & Minniti, 2007). The demographic and perceptual variables alone (Model 6) for the motivation to become an opportunity-driven versus need-based entrepreneur result in a Nagelkerke pseudo-R2 of only about 6%. There are, however, significant differences between traditional measures of R2 and measures of pseudo-R2 used in logistic regression. One significant difference between measures of pseudo-R2 and traditional R2s is that pseudo-R2 outcomes cannot be used to describe the total explanatory power of the model in the same way that traditional R2s can. Another significant difference between measures of pseudo-R2 and traditional R2s is that the pseudo-R2 can only be

used to compare results of models run within the same dataset and not with outcomes for other datasets. Therefore, the Nagelkerke pseudo-R2 of approximately 35% for Models 1 – 4 cannot be meaningfully compared with the Nagelkerke pseudo-R2 of approximately 6% for Models 5 – 8. We can, however, still compare the results of the Nagelkerke pseudo-R2 outcomes for Models 1 – 4 and Models 5 – 8 within their own datasets. In this context, we can again emphasize that even though the results for the independent gender variable are statistically significant, this variable adds no explanatory power to either Models 3 and 4 or Models 7 and 8.

The Hosmer & Lemeshow test results, rather, are considered the best goodness-of-fit test for binary logistic regression with results less than 5% considered a model with a bad fit and results with greater than 5% considered a model with a good fit. When comparing the results of the Hosmer & Lemeshow test with the pseuco-R2 values for Models 1-4 and Models 5-8, the Hosmer & Lemeshow test actually indicates that Models 5 – 8 produce a better fit for the data than Models 1 – 4. For Models 1 – 4, the results of the Hosmer & Lemeshow test are 0 throughout, indicating a model with a bad fit. For Models 5 – 8, the results of the Hosmer & Lemeshow test are .081, .880, .834 and .825 respectively indicating models with a good fit and the strongest model is Model 5. Again, while gender is statistically significant in the regression results in Models 7 and 8, it does not add anything to the goodness of fit of the model and in fact reduces it. The Hosmer & Lemeshow test results for household size also indicate that including this variable reduces the fit of the model. The Hosmer & Lemeshow test result for Model 5 indicates that it is the perceptual variables that are the most important determinant of the motivation to

choose opportunity-driven entrepreneurship versus need-based entrepreneurship. These results, again, are consistent with those found by Langowitz & Minniti (2007).

DISCUSSION

The primary purpose of this paper is to provide an empirical analysis based upon the 2015 data in the APS of the GEM to gain insight into whether gender is a significant factor in the choice to be an early-stage entrepreneur in general, how gender impacts the motivation for opportunity-driven entrepreneurial pursuits, and how household size impacts both of those decisions. In sum, neither gender (although statistically significant) nor household size provide us with any explanatory power into those decisions and can consequently be interpreted as largely irrelevant to this large, global dataset.

There is little debate that regression analyses are the basis for the vast majority of academic literature, but there has been increasing literature related to problems with how *p* values are currently being applied. *P* values are easily misinterpreted and were never intended to be used as a measure of significance. As Nuzzo (2014) stated, "Most scientists would look at [the] original *p* value of 0.01 and say that there was just a 1% chance of his result being a false alarm. But they would be wrong. The *p* value cannot say this: all it can do is summarize the data assuming a specific null hypothesis. It cannot work backwards and make statements about the underlying reality."

In addition to the *p* value being misunderstood, it has become susceptible to manipulation by researchers. Researchers may not even be consciously manipulating their studies to taint their findings. As Gelman and Loken (2013) state, "The short version is that it's easy to find a $p < .05$ comparison even if nothing is going on, if you look hard

enough—and good scientists are skilled at looking hard enough and subsequently coming up with good stories (plausible even to themselves, as well as to their colleagues and peer reviewers) to back up any statistically-significant comparisons they happen to come up with."

The availability and emergence of big data such as the GEM APS survey results also presents problems for reliance on statistical significance in regression analyses. Big data makes sample size less of an issue than it historically has been, but that comes with a tradeoff. A tiny effect size can have a very low *p* value in a large sample size (Head, et al, 2015). These low *p* values lead to more Type I errors which reject a true null hypothesis. This presents an interesting problem for knowledge accumulation in the academic literature, and the problem will continue to increase as false positive results (ie. reliance on gender as statistically significant when used as a variable in women's entrepreneurship research results) present in literature precipitate future studies building upon the flawed existing literature. This concern regarding small effect sizes present in the GEM data research is echoed by Hair et al (2006) and Bergmann and Mueller (2014) who recommend an emphasis on overall explanatory power rather than statistical significance in empirical GEM-based research. A compounding factor is the lack of incentive to replicate previous studies to confirm the knowledge that enters the literature (Kelly, 2006).

In her discourse analysis of women's entrepreneurship studies where gender was conceptualized as a variable, Ahl (2006) notes that the assumption that fundamental gender differences exist was so pervasive that even where significant differences between genders were not found that the majority of authors tried to explain away their results to

align with that assumption. She observed three counterproductive strategies for explaining empirical results highlighting the differences between women and men: (1) "Making a mountain out of a molehill" whereby there is an overemphasis on statistically significant differences while ignoring the similarities and overlap between the groups, (2) Focus upon the "self-selected woman" where women entrepreneurs are said to have become different and tougher than ordinary women, and (3) the woman entrepreneur as the "good mother" where women's proposed differences are construed as advantages rather than disadvantages but in ways that still preserve the idea of the "ordinary, caring and relational woman." Placing undue emphasis upon the statistically significant results for gender in this analysis would fall under Ahl's "making a mountain out of a molehill" fallacy.

Only by using gender as a lens rather than as a variable, argues Ahl, can the patterns observed in women's entrepreneurship be understood and the impending dead end in women's entrepreneurship research be averted. While it is increasingly common for gender to be included as a variable in studies focused upon women's entrepreneurship, it is yet rare for gender, and a feminist perspective explicitly, to be used as the lens. Even where contextual and historical variables are included in women's entrepreneurship studies, they are typically categorized as "situational and dispositional variables (Brush, 1997; Carter et al, 1997; Greene et al, 1999; Walker & Joyner 1999)." The omission of the word "feminism" in these analyses with all its inherent societal perspectives on power relationships tends to make invisible any discussion of how the social world is arranged and the possibility of structural changes. Shortcomings in

personal characteristics and entrepreneurial outcomes for women are continually attributed to individual women and not to social context.

Ahl and Marlow (2012) further discuss the reasons that the current positivist focus in academic research on individual women and their businesses does not at all explain current patterns of women's entrepreneurship. The assertion is again made that failure to apply feminist theory and critique to the empirical results of studies in women's entrepreneurship places knowledge accumulation dangerously close to an end. Despite the prevailing representation of entrepreneurship as an open and meritocratic socio-economic space, they suggest two critical assumptions limit this space for women's entrepreneurship: (1) the heavily male-gendered discourse throughout academic entrepreneurship research which then represents everyone outside that norm as "other" and (2) Women who cannot fit into this discourse require "fixing" via specific interventions to alleviate their deficiency in their pursuit of socioeconomic equality. Furthermore, the majority of studies on women's entrepreneurship (and supported by funding) have focused upon women's entrepreneurship as an instrument for economic growth (Ahl, 2006). This is exactly the way in which patriarchy and capitalism combine in such a way that the dominant class speaks for the whole and the interaction produces a social mapping whereby the deficiencies of the oppressed class are explained as "their place" in the natural order of society and cannot be changed. The heavily male-gendered foundations and continued prevalence of analyzing gender as only a variable in an empirical model to study women's entrepreneurship exacerbate this line of inquiry.

Consistent with the results of Langowitz & Minniti (2007), this analysis indicates that the perceptual variables of having a network and/or role model, perceived

opportunities, sufficient knowledge and skill and fear of failure are salient predictors of one's choosing to be an entrepreneur and in particular to be an opportunity-driven entrepreneur, with sufficient knowledge and skill being the strongest variable. Though providing no explanatory power, the statistically significant results indicate that women are actually slightly *more* likely to become opportunity-driven entrepreneurs than men when controlling for the sociodemographic and perceptual variables. There is, therefore, no indication that gender matters with regard to the entrepreneurial choices that were the focus of this study based on the 2015 GEM APS survey data. What does matter is reframing the lens through which we study the experience and outcomes of women's entrepreneurship.

Brush, de Bruin and Welter (2009) also conclude that women's entrepreneurship cannot currently be understood or explained by the existing theoretical paradigm and even suggest that perhaps a distinct separate theory is needed for this domain that includes due recognition to the social context and embedded nature of gender. Several past studies indicate that the decision to start a business is far more complex for women than it is for men and that women tend to be more sensitive than men to a range of nonmonetary issues including time and location flexibility to accommodate domestic demands (ie. Bird & Brush, 2002; Burke et al, 2002). If women are socialized differently than men, they will perceive entrepreneurial opportunities differently (DeTienne & Chandler, 2007). If women are differently educated and have a different work history than men, they will perceive their knowledge and skills to be different than those of men. They will also have different types of role models and networks. If a society mainly defines and places the burden of domestic demands upon women, societal values then

implicitly interpret women's entrepreneurship as less desirable and will provide lower levels of normative support for those individuals and thus women may perceive their fear of failure at a higher level (Baughn et al, 2006; Welter et al 2006). While Langowitz and Minniti (2007) highlighted the finding that women perceive themselves and their business environment in a less positive light than men in all categories of perceptual variables, this finding is still grounded in the assumption that differences between women and men in women's entrepreneurship can be studied meaningfully in the context of a heavily male-gendered research domain and societal context. Feminist theory would argue that the experience and pursuit of women's entrepreneurship is not simply "less than," but rather an entirely different phenomenon.

Future research on women's entrepreneurship should incorporate explicit feminist perspectives, more variables that capture household and societal contexts, and a variety of mixed methods of research. In particular, explicit feminist perspectives to be incorporated should include social constructionist and poststructuralist feminist theories. These theories define gender not by biological sex, but rather by what is regarded as masculine or feminine as a result of upbringing and social interaction and investigate and challenge the assumptions about gender that are taken for granted. Liberal and social feminist theories (which also include psychoanalytical feminism and radical feminist theory) do not question the male norm but rather advise women to adapt to the existing order of society or present women as complementary and alternative to men thus limiting the repertoire of both sexes. Additional variables should include constructs that capture family embeddedness as well as the macro and meso environments as recommended by Brush, de Bruin and Welter (2009) in their 5M Model. Overt recognition of family

dynamics, unequal division of labor and access to household resources are examples of variables that might be examined with relationship to family embeddedness. The macro environment at the national level frames not only how women perceive opportunities and make strategic choices, but also how these women and others view their businesses. Meso-level institutions include regional business associations and occupational networks. Women's experience or the lack thereof with these institutions also has an impact on the entrepreneurial perceptions and pursuits of women and is unique to the phenomenon of women's entrepreneurship. To obtain a more comprehensive picture of women's entrepreneurship, researchers should also incorporate qualitative dimensions into their research design together with quantitative data in the context of a social constructionist perspective. Such qualitative and exploratory methods might include narrative approaches, content and discourse analysis and ethnographic study.

LIMITATIONS

The biggest limitation of this analysis is that all of the data is self-reported. In particular, respondent answers to the question of "Are you involved in this start-up to take advantage of a business opportunity or because you have no better choices for work?" and how to define "need" and "opportunity" could potentially mean very different things to different people. Self-report bias may also come into play if it is considered more socially desirable to report either opportunity-driven or needs-based entrepreneurial pursuit. Furthermore, because women are socialized differently than men, they can also perceive different entrepreneurial possibilities and in a different way than

men and opportunity recognition and definition is deeply embedded in one's environment (DeTienne & Chandler, 2007).

The single-item responses to several questions also limit the ability of the results to meet basic psychometric standards, but the purpose of this survey design is to reduce translation errors and cultural bias in responses (Reynolds et al, 2005). Additionally, because there are only a few entrepreneurs relative to non-entrepreneurs in the GEM survey, standard estimation techniques might produce biased results for these "rare events" (King and Zeng, 2001).

CONCLUSION

From a theoretical perspective, this paper is the first to examine the GEM APS data through a feminist lens. While gender has been studied using the GEM APS data in over 40 articles to date, those studies revolve around the differences between women and men with regard to entrepreneurial attitudes, activities and aspirations (Sanchez-Escobedo et al, 2016). Women's entrepreneurship research has historically and overwhelmingly been dominated by a positivist approach, focus on individual women without examining the societal context, standardized data collection and multivariate techniques in a heavily male-gendered paradigm (Aldrich and Baker, 1997). In contrast to studies capitalizing on statistically significant differences between women and men, this study indicates that a person's gender nor their household size are meaningful explanatory variables for either the choice to become an active early-stage entrepreneur in general nor in the motivation to become an opportunity-driven entrepreneur. In short, in the context of this sample of considerable size and scope, gender and household size

don’t matter. We therefore need to incorporate feminist theory, additional variables and research methods in future studies to gain much-needed additional insight into the phenomenon of women’s entrepreneurship.

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APPENDIX

Table 1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Dependent Variables					
Currently an entrepreneur	181,281	0	1	.1768	.38151
Opportunity-driven entrepreneur	21,489	0	1	.4549	.49798
Independent Variables					
Gender	181,281	0	1	.5075	.49995
Household size	179,015	1	90	3.79	2.548

Table 2
Logistic Regression Results for Active Early-Stage Entrepreneurship

	Model 1			Model 2			Model 3			Model 4		
	b	SE	OR	b	SE	OR	b	SE	OR	b	SE	OR
CONTROL VARIABLES												
Constant	-4.112**	0.064	0.016	-3.633**	0.068	0.026	-3.575**	0.068	0.028	-3.592**	0.069	0.028
Sociodemographic Variables												
Country Group												

Factor driven																
Transition between factor driven and efficiency driven	1.148	***	0.034	3.151	0.644	***	0.036	1.905	0.643	***	0.036	1.902	0.624	***	0.039	1.867
Efficiency driven	1.154	***	0.031	3.170	0.829	***	0.033	2.292	0.825	***	0.033	2.282	0.820	***	0.033	2.271
Transition between efficiency driven and innovation driven	0.835	***	0.021	2.304	0.663	***	0.023	1.941	0.661	***	0.023	1.937	0.657	***	0.023	1.930
Innovation driven	0.326	***	0.022	1.385	0.137	***	0.023	1.147	0.132	***	0.023	1.141	0.129	***	0.023	1.138
Work Status																
Full time																
Part time	2.266	***	0.045	9.640	2.235	***	0.046	9.349	2.255	***	0.046	9.535	2.256	***	0.046	9.546
Retired/Disabled	0.523	***	0.060	1.687	0.514	***	0.061	1.672	0.517	***	0.061	1.676	0.518	***	0.061	1.678
Homemaker	-1.166	***	0.089	0.311	-1.029	***	0.090	0.357	-1.019	***	0.090	0.361	-1.016	***	0.090	0.362
Student	-1.284	***	0.091	0.277	-1.046	***	0.091	0.351	-1.099	***	0.092	0.333	-1.098	***	0.092	0.334
Not working	-0.544	***	0.109	0.581	-0.318	**	0.110	0.727	-0.309	**	0.110	0.734	-0.310	**	0.110	0.734
Educational Attainment																
None																
Some secondary	0.528	***	0.042	1.695	0.689	***	0.045	1.993	0.694	***	0.045	2.002	0.687	***	0.045	1.988
Secondary degree	0.088	*	0.040	1.091	0.274	***	0.042	1.315	0.283	***	0.042	1.327	0.280	***	0.042	1.323
Post secondary	-0.004		0.037	0.996	0.129	**	0.039	1.138	0.136	***	0.039	1.146	0.135	***	0.039	1.144
Graduate experience	-0.130	***	0.037	0.878	-0.058		0.039	0.944	-0.058		0.039	0.944	-0.058		0.039	0.943
Household Income																
Lowest 33%																
Middle 33%	-0.435	***	0.021	0.647	-0.242	***	0.022	0.785	-0.252	***	0.022	0.777	-0.249	***	0.022	0.780
Upper 33%	-0.213	***	0.019	0.808	-0.093	***	0.020	0.911	-0.097	***	0.020	0.908	-0.094	***	0.020	0.910

		*		1.		*		1.		*		1.		*		1.
	0.0	*	0.00	01	0.0	*	0.00	02	0.0	*	0.00	02	0.0	*	0.00	02
Age	18	*	1	8	21	*	1	1	21	*	1	1	21	*	1	1
Perceptual Variables																
Network					-	*		0.	-	*		0.	-	*		0.
and/or role					0.6	*	0.01	54	0.6	*	0.01	54	0.6	*	0.01	54
model					12	*	8	2	14	*	8	1	14	*	8	1
					-	*		0.	-	*		0.	-	*		0.
					0.1	*	0.01	84	0.1	*	0.01	84	0.1	*	0.01	84
Opportunity					68	*	7	6	67	*	7	6	67	*	7	6
					-	*		0.	-	*		0.	-	*		0.
					1.2	*	0.02	27	1.2	*	0.02	27	1.2	*	0.02	27
Skill					89	*	0	5	99	*	0	3	99	*	0	3
						*		1.		*		1.		*		1.
					0.3	*	0.01	35	0.3	*	0.01	36	0.3	*	0.01	35
Fear of failure					00	*	8	0	07	*	8	0	07	*	8	9
INDEPENDENT VARIABLES																
									-	*		0.	-	*		0.
									0.1	*	0.01	87	0.1	*	0.01	87
Gender									34	*	7	5	34	*	7	5
																1.
													0.0		0.00	00
Household size													04		3	4
		9678				8830				8824				882		
		8.57				0.12				0.70				38.8		
- 2LL		6				6				1				7		
Nagelkerke		0.25				0.34				0.34				0.34		
pesudo-R2		6				8				8				8		
Hosmer &		0.00				0.00				0.00				0.00		
Lemeshow test		0				0				0				0		
Classification		0.81				0.82				0.82				0.82		
accuracy		2				2				2				2		
		1190				1190				1190				119		
N		40				40				40				040		
***p < .001, **p <.01, *p <.05																
Classification accuracy - DV = 1		0.12				0.30				0.30				0.30		
		4				4				5				5		
Classification accuracy - DV = 0		0.97				0.94				0.94				0.94		
		9				8				8				8		

Table 3
Logistic Regression Results for Opportunity-Driven Entrepreneurs

	Model 5				Model 6				Model 7				Model 8			
	b		SE	OR	b		SE	OR	b		SE	OR	b		SE	OR
CONTROL VARIABLES																
		*		1.				1.				1.				1.
	0.6	*	0.17	93	0.5	*	0.17	78	0.5		0.18	70	0.5		0.18	69
Constant	60	*	5	4	80	*	9	5	34	*	0	5	28	*	1	6
Sociodemographic Variables																
Country Group																
Factor driven																
Transition between factor driven	-			0.	-			0.	-			0.	-			0.
and efficiency	0.0		0.06	97	0.1		0.06	87	0.1		0.06	87	0.1		0.07	87
driven	29		6	1	31		7	7	30		7	8	37		4	2
	-	*		0.	-	*		0.	-	*		0.	-	*		0.
Efficiency	0.2	*	0.06	77	0.2	*	0.06	75	0.2	*	0.06	75	0.2	*	0.06	75
driven	53	*	5	6	83	*	5	4	8	*	5	6	82	*	5	5
Transition between efficiency driven and	-			0.	-			0.	-			0.	-			0.
innovation	0.0		0.04	91	0.0		0.04	91	0.0		0.04	91	0.0		0.04	91
driven	90	*	5	4	91	*	6	3	86		6	8	87		6	7
				1.				1.				1.				1.
Innovation	0.1		0.04	11	0.1		0.04	10	0.1		0.04	10	0.1		0.04	10
driven	08	*	7	4	00	*	7	6	03	*	7	9	02	*	7	8
Work Status																
Full time																
	-			0.	-			0.	-			0.	-			0.
	0.0		0.14	98	0.0		0.14	99	0.0		0.14	99	0.0		0.14	99
Part time	16		5	4	01		6	9	01		6	9	01		6	9
	-			0.	-			0.	-			0.	-			0.
Retired/Disabled	0.2		0.19	78	0.2		0.19	78	0.2		0.19	78	0.2		0.19	78
	48		6	0	46		7	2	39		7	8	39		7	8
				1.				1.				1.				1.
	0.0		0.25	09	0.0		0.25	09	0.0		0.25	09	0.0		0.25	09
Homemaker	93		1	7	91		2	5	91		2	5	92		2	6
	-			0.	-			0.	-			0.	-			0.
	0.3		0.27	70	0.3		0.27	70	0.3		0.27	73	0.3		0.27	73
Student	49		5	6	43		6	9	12		7	2	12		7	2
				1.				1.				1.				1.
	0.2		0.35	26	0.3		0.35	36	0.3		0.36	35	0.3		0.36	36
Not working	38		8	9	10		9	3	07		0	9	07		0	0
Educational Attainment																
None																
	-	*		0.	-	*		0.	-	*		0.	-	*		0.
Some	0.6	*	0.08	51	0.6	*	0.08	53	0.6	*	0.08	53	0.6	*	0.08	53
secondary	66	*	8	4	26	*	8	5	22	*	8	7	25	*	9	5

	-0.527	*		0.059	-0.408	*		0.061	-0.408	*		0.061	-0.408	*		0.061
Secondary degree	-0.275	*	0.085	0.001	-0.825	*	0.085	0.018	-0.805	*	0.085	0.019	-0.815	*	0.085	0.018
	-0.375	*		0.007	-0.350	*		0.007	-0.305	*		0.015	-0.350	*		0.007
Post secondary	-0.375	*	0.078	0.001	-0.350	*	0.079	0.001	-0.305	*	0.079	0.001	-0.350	*	0.079	0.001
	-0.069			0.493	-0.062			0.494	-0.060			0.494	-0.061			0.494
Graduate experience			0.079				0.079				0.079				0.079	
Household Income																
Lowest 33%																
	-0.603	*		0.053	-0.557	*		0.057	-0.549	*		0.057	-0.548	*		0.057
Middle 33%	-0.317	*	0.043	0.009	-0.355	*	0.043	0.004	-0.349	*	0.043	0.004	-0.348	*	0.043	0.004
	-0.352	*		0.007	-0.303	*		0.007	-0.319	*		0.007	-0.318	*		0.007
Upper 33%	-0.352	*	0.039	0.003	-0.303	*	0.039	0.005	-0.319	*	0.039	0.005	-0.318	*	0.039	0.005
	-0.004			0.999	-0.002			0.998	-0.002			0.998	-0.002			0.998
Age		*	0.001				0.001				0.001				0.001	
Perceptual Variables																
Network and/or role model					-0.078	*	0.035	0.925	-0.077	*	0.035	0.926	-0.077	*	0.035	0.926
					-0.202	*	0.034	0.000	-0.209	*	0.034	0.000	-0.209	*	0.034	0.000
Opportunity					-0.209	*	0.044	0.002	-0.209	*	0.044	0.001	-0.209	*	0.044	0.001
					-0.223	*	0.045	0.000	-0.219	*	0.045	0.000	-0.220	*	0.045	0.000
Skill					-0.223	*	0.055	0.000	-0.219	*	0.055	0.000	-0.220	*	0.055	0.000
						*		1.000		*		1.000		*		1.000
Fear of failure					-0.216	*	0.037	0.000	-0.213	*	0.037	0.000	-0.213	*	0.037	0.000
INDEPENDENT VARIABLES																
												1.000				1.000
Gender									0.075	*	0.034	0.078	0.076	*	0.034	0.079
																1.000
Household size													0.002		0.006	2
			2101				2086				2086				2086	
- 2LL			3.390				8.474				3.511				3.451	
Nagelkerke pesudo-R2			0.051				0.063				0.064				0.064	
Hosmer & Lemeshow test			0.081				0.880				0.834				0.825	
Classification accuracy			0.587				0.595				0.597				0.597	
			1567				1567				1567				1567	
N			7				7				7				7	

***p < .001,
**p <.01, *p
<.05

Classification accuracy DV = 1	0.458	0.466	0.468	0.468
Classification accuracy DV = 0	0.696	0.705	0.706	0.706