

THE EFFECTIVENESS OF ENTREPRENEURIAL START-UP ASSISTANCE PROGRAMS: EVIDENCE FROM THE U.S. PANEL STUDY OF ENTREPRENEURIAL DYNAMICS

This dissertation uses data from the U.S. Panel Study of Entrepreneurial Dynamics to examine start-up assistance programs broadly defined as those programs offered by government agencies, educational institutions, business associations, non-profit organizations, for-profit firms and others. It is structured as three essays that investigate different facets of the interaction between nascent entrepreneurs and start-up assistance programs. The first essay focuses on why some entrepreneurs obtain assistance while others do not. The second essay investigates the effectiveness, value and efficiency of assistance programs in meeting entrepreneurial support needs. The third essay examines the impact of assistance programs on start-up outcomes.

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Dissertation by:

Juita-Elena (Wie) Yusuf

Martin School of Public Policy and Administration, University of Kentucky

EXECUTIVE SUMMARY

INTRODUCTION

This dissertation provides a three-prong evaluation of assistance programs targeted at supporting nascent entrepreneurs in the start-up phase of the entrepreneurial process. It investigates the questions of why and how entrepreneurs use outside assistance, and if such use has an impact on start-up outcomes. The basic purpose is to undertake a multi-faceted evaluation of entrepreneurial assistance programs that contributes needed information for understanding how to develop better programs or how to better support entrepreneurs.

The dissertation is structured as three essays that investigate different elements of the interaction between entrepreneurs and assistance programs. The first essay focuses on the question of why some entrepreneurs seek outside assistance while others do not. The second essay investigates different elements of the entrepreneur's contact with assistance programs to determine the effectiveness and value, and subsequently the efficiency, of these programs in meeting the support needs of the entrepreneur. Finally, the third essay examines the extent to which support from assistance programs impacts the outcomes of the start-up process.

The questions addressed in this dissertation are relevant because they relate to programs targeted at encouraging and promoting entrepreneurship. Entrepreneurship has been an important driver of economic and social growth both in the U.S. and worldwide. Entrepreneurship and entrepreneurial activity contribute to economic development by encouraging innovation,

fostering job creation, and improving global competitiveness for firms, regions, and entire countries, in addition to promoting the full use of human, financial, and other resources.

Entrepreneurship has also been seen as a solution for alleviating poverty, reducing unemployment, increasing self-sufficiency, and providing options for economic and social mobility. Furthermore, entrepreneurship is both prevalent and embedded within society. The entrepreneurial process, however, is highly complex and the outcomes are highly uncertain. There is a high failure rate for entrepreneurial activity, with many organizing attempts failing and many opportunities remaining unrealized. In fact, research has shown that only about half of nascent entrepreneurs – those involved in starting a new firm – succeed in establishing an operating firm and fewer than one in ten new ventures grow. This high failure rate, combined with the prevalence and important contributions of entrepreneurship to the economy and society, are often cited as the reasons for encouraging and supporting entrepreneurship through public policy.

Over the past two decades, entrepreneurship has become an important policy domain with entrepreneurship policy being embraced by national, state and local governments as a means of increasing economic growth and diversity, ensuring competitive markets, helping the unemployed generate additional jobs for themselves and others, countering poverty and welfare dependency, and encouraging labor market flexibility, among others. In the U.S., entrepreneurship policies and programs have become an integral part of state and local economic development strategies.

Despite the importance placed on promoting entrepreneurship and the abundance of resources committed to encouraging entrepreneurial activity, policymakers have primarily been operating in the dark, with policymaking usually being made without the benefit of substantive research findings. In fact, some researchers have concluded that the entrepreneurship policy domain is marked by a lack of “know-what” and “know-how.” Policymakers often lack sufficient information and knowledge about how to craft entrepreneurship policy and how to design entrepreneurial support programs that can effectively achieve the goals of entrepreneurship policy. While entrepreneurship as a field of research has made important advances in understanding how entrepreneurship occurs, what drives entrepreneurship, and who becomes an entrepreneur, such progress has not been accompanied by well-informed

policymaking. In fact, the research–policy interaction can be characterized more by research mimicking policy than research informing policy.

This dissertation focuses on one form of entrepreneurship policy intervention, namely entrepreneurial assistance programs targeted at supporting nascent entrepreneurs during the startup process. These programs represent the most common policy intervention approach adopted by many governments, as they are the most feasible and least difficult intervention tools to implement. Such programs exist in almost all developed economies and take the form of subsidized government programs, and programs offered by non-profit organizations, educational institutions, or voluntary associations. Policymakers at all levels of government have created support or assistance programs to help entrepreneurs overcome these obstacles and challenges. Evaluations of these programs, especially in terms of if and how they matter, therefore should be a focus of research to determine the extent to which continued emphasis on providing support or assistance programs is warranted. Findings from such evaluations can also serve to improve the design of assistance programs, including design elements related to program content and delivery.

The focus of this dissertation is on nascent entrepreneurs' use of assistance programs during the start-up phase of the entrepreneurial process. Nascent entrepreneurs are defined as those individuals involved in the gestation or start-up phase of the entrepreneurial process. Operationally, the start-up phase is defined as the stage where the entrepreneur has made the decision to organize or start a firm to exploit an opportunity but has not realized or created an operating business which has generated sufficient revenues to cover costs including the entrepreneur's salary. The outcome of the start-up phase, therefore, is firm creation and the transition from a start-up to operating firm. Start-up assistance programs are broadly defined as those programs provided or funded by government agencies, educational institutions such as colleges and universities, non-profit and community organizations, voluntary or business groups, and for-profit firms.

Evaluation of Start-up Assistance Programs

The continued commitment to provide entrepreneurial support programs should depend to a large degree upon an understanding of entrepreneurs, their support needs and reasons for using such programs, their interactions with these programs and the potential impact of these programs on the entrepreneurs and their ventures. Determining whether programs are sufficiently effective or proven to have a substantive impact requires understanding why and how entrepreneurs interact with these programs and how these programs can influence the outcome of their entrepreneurial pursuits. While the rationale for entrepreneurial assistance programs has been well established, the effectiveness of assistance programs in achieving the goals of policy, however, remains debatable. Researchers have argued that not only are assistance programs not uniformly effective and do not provide meaningful support to entrepreneurs, but many programs are not evaluated for effectiveness.

The basic purpose of this dissertation is to provide a multi-faceted evaluation of entrepreneurial assistance programs. This dissertation is structured as three essays that investigate different elements of the interaction between entrepreneurs and assistance programs to arrive at an evaluation of these programs. Each essay provides a different evaluation of startup assistance program, broadly defined as those programs offered by government agencies, educational institutions, business organizations, fraternal groups, non-profit organizations, for-profit firms and others.

The research question for each essay is addressed using data from the U.S. Panel Study of Entrepreneurial Dynamics (PSED). The PSED provides a national database of individuals involved in the process of starting businesses and whose start-up efforts have not yet generated positive cash flows sufficient to cover owner salaries when first sampled. It offers systematic, reliable and generalizable data on the process of business formation in the U.S. The PSED is a publicly-available dataset (www.psed.isr.umich.edu) created by the Entrepreneurship Research Consortium comprised of member institutions (primarily universities and government agencies). Funding for data collection was also provided by the National Science Foundation and the Ewing Marion Kauffman Foundation. The PSED contains 830 nascent entrepreneurs who were interviewed four times over approximately four years (from 1998 to 2003) depending on when they were originally contacted about their start-up activities and the subsequent outcomes of their start-up endeavors.

**ESSAY 1: OUTSIDE SUPPORT AS THE ENTREPRENEUR'S LAST RESORT?
DIFFERENCES IN DETERMINANTS OF USE OF EXTERNAL ASSISTANCE
PROGRAMS BY MALE AND FEMALE ENTREPRENEURS IN THE U.S.**

The first essay focuses on why, despite the prevalence of entrepreneurial assistance programs, few entrepreneurs actually utilize support services from these programs. Specifically, it seeks to determine the factors that influence whether or not a nascent entrepreneur contacts an outside assistance program for support. I propose a “theory of external assistance as the support option of last resort” that explains how entrepreneurs will obtain support from assistance programs when such support is unavailable from informal sources of support such as the start-up team or the entrepreneur’s personal network. In theory, therefore, outside assistance programs are intended to help nascent entrepreneurs who are in need of support, defined in this essay as those entrepreneurs with lower levels of human capital and those who have no alternative, higher order sources of support.

A secondary goal of the research presented in the first essay is to study gender differences in terms of the determinants of contact with start-up assistance programs. I argue that these differences primarily arise out of differences in informational and support needs of female entrepreneurs compared to male entrepreneurs. This has been attributed by researchers to differences between men and women in the types of education and the length and types of experiences, in addition to differences in the characteristics of their personal networks and their ability to deploy their social capital.

The results of the empirical findings of this first essay are inconclusive with regard to the theory of external assistance as the support option of last resort. There appears to be no relationship between the use of assistance programs and the availability of alternative support sources such as from the start-up team and personal network. Results also show that the determinants of use do differ for male and female entrepreneurs.

Even more interestingly, the results of this essay suggest that assistance programs do not appear to be utilized as a means to compensate for capital and resource deficiencies. Rather, the opposite seems true, with assistance programs being utilized as a means of building on the entrepreneur’s existing capital and resource endowments, especially in the case of female entrepreneurs.

ESSAY 2: NASCENT ENTREPRENEURS' CONTACT WITH AND USE OF ASSISTANCE PROGRAMS AND THE DETERMINATION OF PROGRAM EFFECTIVENESS, VALUE AND EFFICIENCY

The second essay focuses on determining the entrepreneur's perception of effectiveness, value, and efficiency of entrepreneurial assistance programs. This is achieved by investigating different elements of the entrepreneur's contact with assistance programs and answering four key questions: (1) What are the nascent entrepreneurs' support needs and the reasons they contact assistance programs for help? (2) What assistance do nascent entrepreneurs actually receive from these programs? (3) How much time do nascent entrepreneurs spend with assistance programs? and (4) How valuable do the entrepreneurs perceive the assistance to be? From answers to these questions, effectiveness is determined as the extent to which the assistance received from the program addresses the entrepreneur's problems and support needs. Value is based on the nascent entrepreneur's perception of the fair market value of the assistance received. Efficiency is calculated as the ratio of the perceived fair market value of the assistance to the nascent entrepreneur's time commitment to the program.

The goal of this essay is to provide insight into how well support needs of entrepreneurs are being met. The empirical findings are of particular importance as research has suggested that the entrepreneur's perception of service value is an essential factor in the success of outside advice or consulting services. As such, an evaluation of assistance programs from the nascent entrepreneur's perspective provides a better understanding of how the assistance and the program providing this assistance are valued by the entrepreneur.

This essay's findings give rise to some concerns regarding the fulfillment of nascent entrepreneurs' support needs. On average, approximately thirty percent of entrepreneurs received assistance that matched their expressed support needs. This low percentage suggests that assistance programs may be largely ineffective in addressing the problems faced by nascent entrepreneurs and their start-up organizations.

ESSAY 3: HOW DO NASCENT ENTREPRENEURS' CONTACT WITH AND USE OF ASSISTANCE PROGRAMS IMPACT START-UP OUTCOMES

The empirical investigation in the third essay focuses on the impact on start-up outcomes of the entrepreneur's contact with and use of assistance programs, especially in terms of the entrepreneur's undertaking guided preparation. Guided preparation is defined as the combination of planning activities that the entrepreneur engages in during the start-up process and the entrepreneur's contact with the assistance program. The research builds on the "theory of outside assistance as a knowledge resource" proposed by Chrisman and McMullan (2004; Chrisman et al. 2005) and argues that guided preparation provides the entrepreneur with needed knowledge to succeed in the start-up process, therefore positively impacting start-up outcomes.

An important contribution of this essay, beyond assessing the basic question of the impact of assistance programs, is that it provides an answer to this question that is free of self-selection bias. The empirical analysis controls for selection bias using Heckman's two-stage sample selection model. The empirical findings show that self-selection bias, while remaining a cause for concern in the evaluation of the impact of assistance programs, may not be as critical as some researchers may suggest.

Furthermore, guided preparation as the combination of contact with an assistance program and the extent of sophisticated planning appears to contribute to start-up outcome, positively predicting the transition from start-up to operating new firm. However, neither component of guided preparation, having made contact with an assistance program or planning sophistication, itself impacts the outcome of the start-up process. The mere contact with an assistance program itself does not contribute to entrepreneurs achieving more positive start-up outcomes. Similarly, planning and preparation, including market assessment, business plan development, and financial planning, do not contribute to start-up outcome. Rather, it is the interaction of the two that positively influences start-up outcome.

The implications of this essay's findings are that guided preparation as an element of the entrepreneur's interaction with the assistance program contributes to positive start-up outcomes; and that this positive effect cannot be attributed to what some researchers have argued as high ability entrepreneurs selecting to increase their chances of success by obtaining outside support.

CONCLUSION

Given the research questions posed in these essays, this dissertation concludes with the important question: are entrepreneurial assistance programs sufficiently effective or proven to have a substantial impact? Specifically, what does the dissertation tell us, from an evaluation perspective, about these assistance programs? What are the implications for entrepreneurship policy and entrepreneurial assistance program design?

The conclusion includes a discussion of key findings of the dissertation's evaluation of assistance programs, the implications of these findings, and the overall contribution of the dissertation. The overall conclusion to be reached from the findings of the three essays is simple. Despite being used by only a fraction of nascent entrepreneurs, and despite not adequately meeting entrepreneurs' support needs, assistance programs when combined with preparatory actions by the entrepreneur, do positively impact the start-up process and are effective in influencing the successful transition from start-up to operating firm.

This conclusion points to the need to emphasize the delivery component of assistance programs rather than focusing on the content of the assistance provided. Together, the findings of essays 2 and 3 suggest that delivering support through mechanisms that allow customization to the entrepreneur's specific needs, such as through contact that provides counseling in addition to customized preparatory activities, matters in terms of impacting the outcome of the start-up process, regardless of whether the content of the assistance matches that demanded by the entrepreneur.

Furthermore, an important policy implication is that continued commitment to or expansion of assistance programs should result in greater support for entrepreneurship and entrepreneurial activity if the programs are designed to focus more on providing support that is targeted to the entrepreneur's latent need as identified through planning and preparatory activities. Policy and program attention should therefore focus on better improving the way entrepreneurial support needs are met by these programs, one solution of which would be to deliver support through a guided preparation approach.