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# **Developing a framework for assisting entrepreneurs:**

A case study of the Michigan State University Product Center for Agriculture and  
Natural Resources

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## **Background**

Since the early 1980s there has been a great deal of publically financed and supported Entrepreneurial Assistance Programs (EAPs) targeted at helping entrepreneurs start new ventures. In particular, the majority of the literature on this topic has looked at the Small Business Development Centers (SBDC) that are in operation in many states. In general, they have found that the clients of the various EAPs that have been surveyed have overwhelmingly responded positively about the value of such programs. However, on a scientific level, it has been much more difficult to determine whether, despite this high level of client satisfaction, if the EAPs in question have been at all responsible in increasing in the success and survival of the clients' new ventures more than would otherwise be expected. Furthermore, there are few research studies on the mechanisms through which these EAPs can help entrepreneurs in context of the more general entrepreneurial process. In this regard, this paper will focus on a case study of one particular EAP, the Michigan State University Product Center, in order to evaluate the empirically induced model of assistance it has developed in terms of both the needs of the entrepreneurs receiving assistance and the broader theoretical framework of the entrepreneurial process.

## **Entrepreneurial Process Framework**

To begin with, a framework for understanding the entrepreneurial process must be developed. Shane and Venkataraman have defined the field of entrepreneurship as "the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited," (Venkataraman, 1997; Shane and Venkataraman, 2000). In this framework, the process begins when there is a perception of a situation in which resources can be combined in a new manner that has the potential to bring surplus over costs, or profits. Alert individuals then discover these opportunities and must evaluate whether or not they wish to become entrepreneurs in order to

attempt to exploit that opportunity. Finally, the entrepreneur must acquire resources, develop strategies and design organizations to successfully exploit that opportunity through the successful creation and management of a new venture (Shane, 2003).

Entrepreneurial opportunities occur in those situations in which it is possible to sell new goods and services at a higher rate than their cost of production (Casson, 1982). Discovery of this opportunity occurs when an entrepreneur *believes* that she has unique or asymmetrical knowledge that a certain set of resources are not being put to their best use (Shane and Venkataraman, 2000). This opportunity does not have to necessarily turn out to be profitable, so should not be thought of as a Ricardian or Schumpeterian rent, but does require the creation of a new means-end framework instead of optimizing within a current framework (Shane, 2003). Additionally, technological, political, social, regulatory and other types of change are continually adding and updating the potential use of available resources, and hence forcing economies to operate in constant state of disequilibrium while simultaneously creating the need for new information in market participants' decision-making processes (Schumpeter, 1934). Also, the continual change in buyer preferences and needs further exacerbates this disequilibrium by changing the price (demand) people are willing to pay for different products and services. Moreover, due to our imperfect knowledge of the future, the market value of the information, in terms of the new venture's probable future profitability, has a large degree of Knightian uncertainty to it. This allows profits to be had through the contracting of the means of production at a certain rate now to be used to create a product sold in a future market at a value that exceeds the appropriate economic rents paid for each factor (Knight, 1921). Also, this information is not evenly distributed due to the specialization of information in society (Hayek, 1945), and therefore not all market participants are in possession of all the relevant information at the same time with only a subset of the population able to discover a given opportunity (Kirzner, 1973). This leads people to make decisions on the basis of other things besides information alone, such as hunches, intuition, heuristics and even inaccurate information causing their

decisions to be incorrect some of the time. These incorrect decisions lead to “errors” of shortages, surpluses or misallocated resources (Shane and Venkataraman, 2000.) These factors then combine to create the possibility of an entrepreneurial opportunity, the discovery of which occurs when an individual perceives he is able to utilize his unique information set to determine that a particular set of resources could be recombined in a novel way to obtain greater returns than those resources’ current underlying economic rents.

Discovering an entrepreneurial opportunity, however, does not a new venture make. A would-be entrepreneur must also decide to exploit that opportunity. Given, the Knightian uncertain nature of this opportunity, the decision to exploit this opportunity cannot be made through the neo-classical constrained optimization process in response to a given set of alternatives (Baumol, 1993). Instead, citing the work of Kirzner and Schumpeter, Shane and Venkataraman describe this decision in the more familiar economic grounds of an expected utility calculation:

The exploitation of an entrepreneurial opportunity requires the entrepreneur to believe that the expected value of the entrepreneurial profit will be large enough to compensate for the opportunity cost of other alternatives (including the loss of leisure), the lack of liquidity of the investment of time and money, and a premium for bearing uncertainty (Kirzner, 1973; Schumpeter, 1934; from Shane and Venkataraman, 2000).

In essence, once an individual feels she has discovered an opportunity to make entrepreneurial profits, she must then use her current information set and risk-preferences to evaluate whether she wishes to commit the time and resources required to attempt to exploit such an opportunity. Given that less than 50% of new businesses survive for more than five years (Cooper, Woo and Dunkelberg, 1988), it was first hypothesized that entrepreneurs must have a high propensity for risk or place a higher utility on the use of new ventures to satisfy their need for achievement (McClelland, 1964) over their profit capabilities. However, further research has found little evidence for an “entrepreneurial profile” that such hypotheses would suggest is inherent in those willing to take such long odds. Some more recent

studies have found that entrepreneurs simply perceive less risk as being involved (Simon, Aquino, and Houghton, 1999) or are more subject to cognitive biases that cause an individual to overestimate the expected utility of a new venture (Baron, 2004). These cognitive biases include such theories as: prospect theory (Baron, 2004), an optimistic bias (Shepperd et al., 1996), the planning fallacy (Buehler et al., 1994) affect infusion (e.g., Forgas, 1995) overconfidence, the illusion of control, and the belief in the law of small numbers (Simon, Aquino and Houghton, 1999).

In fact, it may be that due to the low odds of successfully discovering and exploiting an entrepreneurial opportunity, a certain amount of cognitive bias is necessary to prevent the entrepreneur from either never attempting to launch the venture or giving up too early during the initial development stages that are likely to have low or negative returns (Baron, 2004; Simon et al, 1999). This might explain why some have found these biases to be quite common among entrepreneurs (Busenitz and Barney, 1997). However, some have suggested that, though a certain amount of cognitive bias is helpful, successful entrepreneurs are better able than the unsuccessful ones to provide a counterbalance to these biases in order to hold them in check (Baron, 2004; Simon et al., 1999). This is because, though these biases help individuals when making complex and uncertain decisions (Schwenk, 1984), they may result in those entrepreneurs making decisions that are not well thought or appropriate to the problem at hand (Barnes, 1984).

Once the decision has been made to exploit the opportunity, the entrepreneur must execute the opportunity by gathering appropriate resources, developing business strategy and designing an organizational structure. The literature of the effect of cognitive biases suggests that the more that the entrepreneur can build and engage “safety nets” that provide checks on whether a cognitive bias is leading them down a potentially negative path, the more successful they will be at exploiting an entrepreneurial opportunity (Simon et al, 1999). However, in order to successfully exploit an

opportunity, an individual must not only overcome whatever cognitive biases they have, but also be able to successfully acquire and utilize the appropriate resources in the actual business operations. The set of skills required to do this, however, are often quite different than those required in order to discover an opportunity and make the decision to exploit it. This may provide insight into why so many new ventures fail.

In summary, the general framework of the entrepreneurial process, as established by Shane and Venkataraman, can be pictured as depicted below in figure 1.

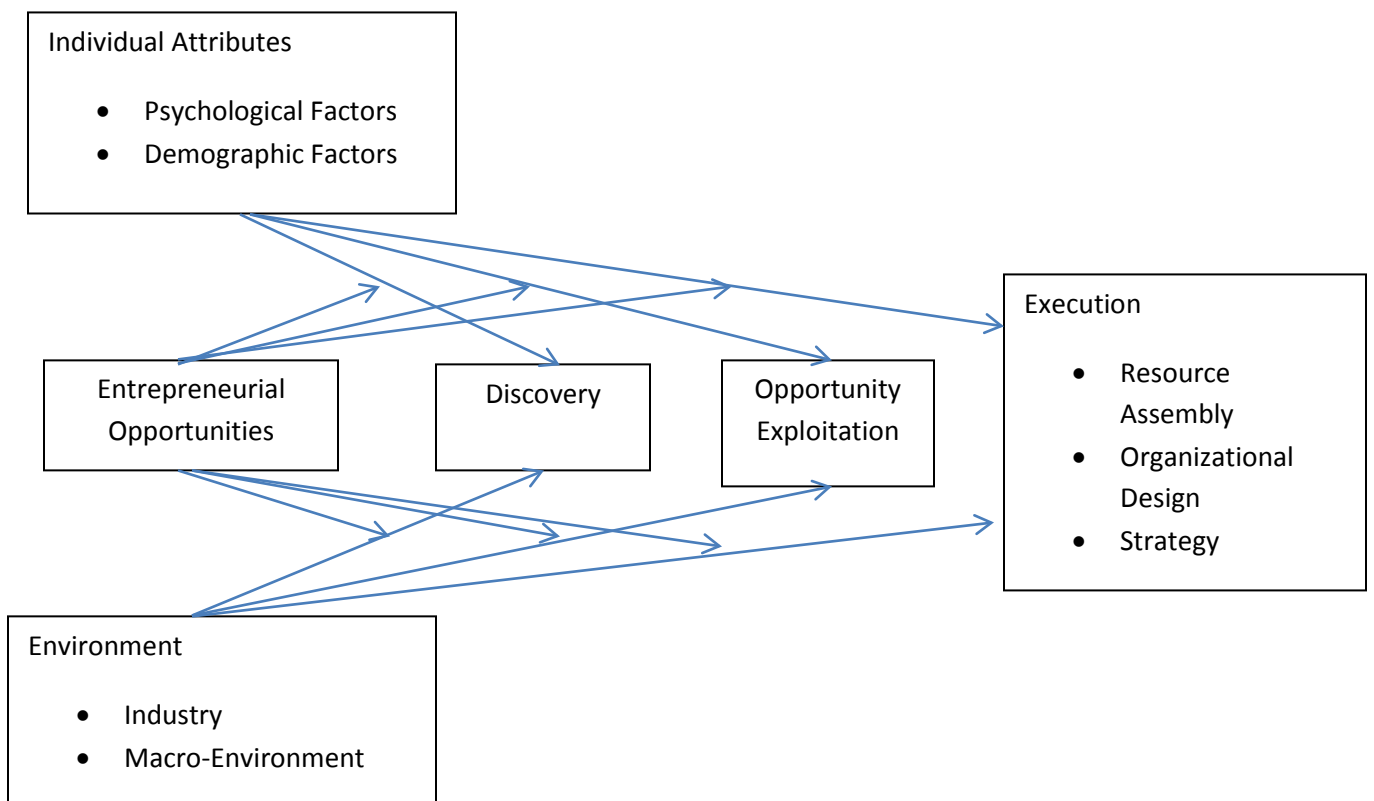


Figure 1: A model of the entrepreneurial process as put forth by Shane.

The entrepreneurial process involves the identification and evaluation of opportunity; the decision whether or not to exploit it; the efforts to obtain resources; the process for organizing those resources into a new combination; and the development of a strategy for the new venture. These different activities are all influenced by individual-, industry-, and institutional-level factors (Shane, 2003)

## **Entrepreneurial Assistance Program (EAP) background**

This leads us now to consider how an EAP can assist entrepreneurs through this process. In the early 1980s to the mid-1990s there was a prominent strand of research that measured the impact of EAPs in terms of comparing EAP clients to non-EAP clients on performance measures such as increase in sales, employments and profits (Robinson, 1982, Chrisman, Nelson, Hoy and Robinson 1983, and Chrisman, Hoy and Robinson 1987). In general, these studies found that EAP-clients outperformed their non-EAP counterparts. However, these studies often compare the performance of a small number of EAP clients (usually under 100) from high performing EAPs to state averages of entrepreneurship. In addition, there does not appear to be any accounting for the selection bias that is inherent in the EAP process in terms of counselors discouraging entrepreneurs to continue with the new venture process if their ideas are perceived to be untenable. Previous work has provided some evidence that clients of entrepreneurial assistance programs have been overall more successful in launching new ventures than what is found in the general entrepreneur population at large (Chrisman, 1998; Chrisman, McMullan 2000; McMullan, Chrisman, Vesper, 2001.). However, the literature has left unanswered whether the observed increased success rate is a direct effect of the assistance provided, or if it is due to the self-selection that occurs through the counseling process. This literature suggests that entrepreneurs who are less committed, have untenable ideas, or have a variety of other issues that would impede their overall chance of success, tend to get “weeded out” in the first stage of the counseling process. Whereas, as shown by Shane, entrepreneurs who are better at discovering entrepreneurial opportunities, will have a larger set of opportunities to choose from and, assuming they choose what they perceive as the best opportunity, will therefore be more likely to succeed (Shane, 2003). Conversely, those with ideas that counselors have already seen fail, or who do not fully appreciate the amount of work, risk and cost involved in starting a new venture, might be dissuaded from continuing on. It is logical to suggest that had members of this group continued on to launch their new venture,

their overall probability of success would be lower than the general population of entrepreneurs. In any case, the population that does continue on through the process is one that can be expected to have a higher probability of success, with or without assistance, than the general entrepreneur population.

While this could perhaps be considered an additional benefit provided by the EAP, as fewer resources may be wasted on failed ventures, the existence of this potential selection-bias makes empirical evaluation of the effect of the EAP problematic if not dealt with. That is to say, if one observes EAP clients as having a higher overall success rate on average, can we attribute this to the influence of the EAP or simply to the selection bias? Evidence of growth or job creation without comparisons to a control sample matched on the basis of age, sector, ownership and geography, and with adjustments for selection bias does not provide a convincing case for economic impact (Storey, 2000). To make adjustments for selection bias, however, one must have good information on the factors that determine performance *and* the factors that predict selection (Bartik, 2004.). In addition, “selection-bias corrections in some cases rest on statistical assumptions that may be difficult to test.” However, though Bartik and Storey both suggest using something similar to the Heckman two stage estimation of Cragg’s double hurdle model (Bartik, 2004; Wren and Storey, 2002) it is unclear if that is truly the best approach to overcome this problem. The double-hurdle model predicts participation in the first stage then uses the inverse-mills ratio obtained to account for selection bias in the second stage to overcome selection-bias in the regression of interest (Heckman, 1979). The Heckman model involves adjusting for a large number of unobserved values that enter the data set as zeroes. This would be very difficult to model unless one has sufficient data on those who get “weeded out”. Moreover, other researchers have well documented the difficulty in obtaining accurate objective measures such as sales or profits from small business entrepreneurs (Sapienza, Smith and Gannon, 1988) as well as their unlikeliness to respond to lengthy surveys (Sampsell, 1984; Elstrott, 1987) making direct comparison of primary performance data such as gross annual sales of EAP clients to non-EAP clients problematic. In addition, a certain

percentage of those entrepreneurs who continue on in the EAP process, who in fact have discovered a potential entrepreneurial opportunity, might not have decided to exploit the opportunity without the encouragement of the counselors or the access to the EAP's network of resources. So not only are those with untenable ideas being "weeded out" but those with tenable ideas who were apprehensive about exploiting those ideas are being "planted in." Finally, as will be discussed in more detail later, given that EAPs often provide a lot of "basic" business knowledge and information, those with extensive business experience may be less likely to find the EAP useful enough to continue through the EAP process. Business experience is often a key indicator of success, especially when it comes to evaluating and executing the opportunity, and so this effect would act in direct opposition to the supposed selection-bias effect by positively predicting venture success but negatively predicting participation in the EAP.

Other studies have focused on the subjective assessment of client satisfaction as a measure of the benefit of an EAP (Ibrahim and Goodwin, 1986; Solomon, 1983; Nahavandi 1988) and have found that EAP clients have, on average, rated EAPs positively. However, one study found no correlation between client satisfaction levels and the previously indicated performance indicators (McMullan, Chrisman and Vesper, 2001). Instead, they concluded satisfaction came more from the personal experience the client had with the counselor. In fact, in a meta-analysis of 51 published papers (1987-1992) related to measuring entrepreneurial performance, Murphy, Trailer and Hill (1996) found no less than eight different performance dimensions used by researchers. Most of these relied on primary data, and no study contained more than five of the eight measures, while most focused on only one or two. These dimensions, in order of highest to lowest frequency of use were: Efficiency, Growth, Profit, Size, Liquidity, Success/Failure, Market Share, and Leverage. Murphy, Trailer and Hill then used Compact Disclosure data from 1993 on 19 performance variables from 803 firms to conduct an exploratory factor analysis (EFA) and found nine distinct factors that explained over 70% of the variance in performance measures, with no single factor explaining more than 14% of the total variance. From here, they

conducted a confirmatory factor analysis (CFA) and found that less than half of the intercorrelations of performance measures were significant and more than 25% of the significant correlations were negative. Indicating a clear lack of a single performance construct validity (Murphy, Trailer, Hill, 1996).

More recently, Yusuf (2010) assessed EAPs on the three dimensions of participation, satisfaction and entrepreneurs' subjective assessments of overall effectiveness. In regard to the last measure, Yusuf found that EAP programs were effective at meeting the nascent entrepreneur's support need only 25.8% of the time. However, despite this lack of effectiveness, still found that 96% of the surveyed clients found the assistance at least somewhat valuable, with 50% finding it extremely valuable. Yusuf also found, on average, that the nascent entrepreneur valued the assistance at around \$2,245 (Yusuf, 2010).

Instead of focusing our attention on side by side comparisons of EAP client's performance and satisfaction measures to that of a control group, perhaps it is better to try to look more closely at how the assistance provided aids in the overall entrepreneurial process laid out by Shane and Venkataraman (2000). In this regard, we can see that the participation variable endogeneity is due more to a problem of omitted unobserved variables, such as the ability to properly discover and exploit entrepreneurial opportunities. In fact, given the Shane framework, depending on whether an individual has actually discovered a true entrepreneurial opportunity and/or has the ability to properly exploit it, it is impossible to determine *a priori* what outcome might be considered a success. For example, those who are pursuing "false leads" or who have overestimated their ability and desire to carry the venture through to fruition, success might be for the EAP counselor to convince the client to do something else. Conversely, those individuals who econometrically might have high success indicators, might never have even attempted the venture with the encouragement of the EAP counselors or the access to key

resources and partners that the EAP provides. By removing this “self-selection” effect from evaluation of the impact of the EAP, one is removing one of the key components of the benefit provided.

Finally, what is considered successful assistance will also depend on the goals and type of entrepreneur receiving the assistance. In particular, not all entrepreneurs seeking assistance are what one might consider “innovative entrepreneurs” or those who are in pursuit of achieving Schumpeterian entrepreneurial profits associated with the creative destruction of market equilibriums (Schumpeter, 1934, Shane 2003). Instead, there is a large subset of entrepreneurs that we might call “lifestyle entrepreneurs” who are simply interested in working for themselves, doing something they love and achieving enough of a net surplus from their venture to sufficiently support themselves (e.g. Morrison et al, 1999). This distinction is quite important because it changes the framework necessary for the evaluation of the discovery and exploitation of an opportunity. In the case of the innovative entrepreneur, for it to be a true opportunity, as defined above, it must be possible for the entrepreneur to find a new combination of resources that provide greater returns than their associated economic rents. This includes, of course, the opportunity cost of the entrepreneur’s time and labor. By contrast, for the lifestyle entrepreneur, the expected returns only need to be greater than a minimum threshold reservation utility required by the entrepreneur to support themselves. In essence, for this group they are not seeking to generate any more profits than would be an adequate return to their own labor, including an appropriate risk premium. In fact, if one considers the opportunity cost of their time in the profit calculation, they may in fact be incurring negative economic profits. In some cases, this loss is offset by the value they place on independence and internal control over their venture. Nonetheless, this is not to say that they should not be engaged in the starting of a new venture. Simply that they are not the vectors of growth in an economy typically associated with entrepreneurship, as they could be viewed as simply contributing towards the market equilibrium by combining resources and extracting appropriate rents in the process, but not adding any additional wealth to the system. In essence, for the

lifestyle entrepreneur, the decision to start a new venture can be viewed as a utility maximizing vertical coordination strategy. This leads to a different metric as to evaluate the effect of the assistance provided by an EAP for the lifestyle entrepreneurs versus the innovative entrepreneurs. For this subset of entrepreneurs, the underlying opportunity only need to be able to overcome a minimum reservation utility, that may or may not in fact provide greater than economic returns to utilized resources.

### **Research Question:**

Taking the above discussion into account, it is clear that in order to evaluate the net effect that an EAP has on its clients and the economy, one cannot simply compare the performance measures of EAP clients versus a control group and consider the task completed. Instead, a framework that encompasses the entrepreneurial process and the role of an EAP within it must first be developed in order to then determine the appropriate measures of impact. Therefore, the main question this paper will attempt to answer is:

*Does the entrepreneurial process framework proposed by Shane (2003) encompass the role that Entrepreneurial Assistance Programs have in determining the success and survival of new ventures?*

### **The Entrepreneurial Process: The Case of the Michigan State University Product Center**

An instrumental case study of the Michigan State University Product Center will be used to explore the research question posed above. Through an analysis of this case, we look to examine the entrepreneurial process as realized by clients of this EAP and compare this process to the framework developed by Shane (2003).

The Product Center was created by a memorandum of understanding among the MSU College of Agriculture and Natural Resources (CANR), Michigan State University Extension (MSUE), and the Michigan Agricultural Experiment Station (MAES). The initial 5-year term of the Product Center began on March 1, 2003, but is currently still in operation as of today. The original mission was, "To be a

catalyst for the creation of profitable futures for businesses and industries engaged in Michigan's agriculture, food and natural resources systems." This was then expanded into a three part framework that emphasized the Product Center's role as a business and technical assistance program, a market research institution and an entrepreneurial education provider (Product Center Strategic Plan, 2007). However, over time, it became clear that the entrepreneurial education component was not highly valued by the entrepreneurs themselves, and this component was dropped in order to focus more heavily on the other two.

The Product Center's central offices are housed on the campus of Michigan State University, but its innovation counselor network is dispersed throughout the entire state of Michigan operating through MSU's extension network. This structure allows clients to have their first contact with an innovation counselor's in their local extension offices, with more advanced services offered on campus.

The Product Center's team consists of a core group of self-directed staff members involved in all or most of the organization's processes, a small executive group comprised of the Product Center director and the two associate directors, who take actions and make commitments on behalf of the organization, and two operating subgroups: a research subgroup – composed of university faculty and students who engage in interdisciplinary research aimed at identifying and supporting actual and potential clients needs; and a venture development subgroup – who work with the actual and potential business clients, as well as the internal and external partners, to provide the analysis and services the clients require. In addition, the Product Center has a vast network of affiliates who support the organization in its operations and an information cadre of persons, including previous clients, partners and stakeholders, who have a strong interest in the operations but are not currently actively involved. (For an overview of the Product Center's Networks, Customers and Desired Outcomes, see Appendix: figure 1)

In September of 2008 a customer satisfaction and client demographic question survey was sent out via e-mail and regular mail to all clients who received service from the Product Center in the year of 2007. Of the approximately 500 clients who received the survey, 65 responded giving a response rate of around 13%. This Respondent's ages ranged from 36 to 78 years old, with an average age of 51. The vast majority of this group were between the ages of 45-60. The most three most common business types selected by the respondents to describe their current business operation were: food processor (32%), followed by grower/producer (28%) and then retailer (16%). Many respondents indicated that they had owned their own business prior to coming to the product center (59%), while even more had at least some management experience (78%). The majority of respondents have been working on their business idea for more than two years (70%), with only slightly over half having already launched their new venture (53%). Most respondents came to the product center either wanting to expand their current business (40%), to start a new business (34%), or simply to get information (30%). Most are food processors, growers, or retailers with annual sales revenue of less than \$100,000 a year. Most have no employees other than themselves, but those who do employ others hire on average four people. The amount of investment required also appears to be split between requiring less than \$40,000 to somewhere in the range of \$100,000 to \$500,000.

### **Product Center's Framework for New Venture Creation**

Based on its eight years of operations and experience with over 880 different clients, the Product Center has developed its own framework for new venture creation. This framework is set up as follows: First, given a particular policy, industry and market environment, an individual or group of individuals will have an innovative idea about a potential entrepreneurial opportunity. Then they feel there is a potential market opportunity and a suitable entrepreneur (usually but not always themselves) able to bring the idea to market, then this combination of the idea, entrepreneur and market

opportunity defines a venture concept. Note that this is different from the Shane (2003) framework which posits that the opportunity is exogenous to the entrepreneur. To review, Shane describes his framework as follows:

The entrepreneurial process begins with the perception of the existence of opportunities, or situations in which resources can be recombined at a potential profit. Alert individuals, called entrepreneurs, discover these opportunities, and develop ideas for how to pursue them, including the development of a product or service that will be provided to customers. (Shane, 2003)

In contrast, the experience of the Product Center has shown that the process often begins first with the development of the product or service (innovative idea), and not the perception of the exogenous market opportunity. In other words, entrepreneurs through their actions create entrepreneurial opportunities<sup>i</sup>. Once this idea has been developed, the individual then scans then environment for a market opportunity that an entrepreneur with the appropriate set of skills and knowledge can exploit. This is not to say that there are not times when an enterprising individual discovers an entrepreneurial opportunity that she then decides to exploit leading to the execution and launch of a new venture per the Shane model, but rather this is not the only way in which new ventures are formed. Instead, the Product Center framework suggests that any of the three elements (innovative idea, market opportunity or an enterprising individual) can initiate the process. All three roles, however, must be present for a successful venture concept to be created.

This venture concept may or may not have been influenced by Product Center programming related to market opportunities, but once formed is the typical impetus for the client to seek assistance from the innovation counselor. The counselor can then first assist the client in the decision on whether to seriously consider turning the venture concept into an actual venture. The innovation counselor assists in this decision by providing resources and information on the venture concept's potential based on the explicit knowledge generating by the Product Center on general market information, processes, organizations and sweat equity related to the venture concept, in addition to the counselor's own tacit

knowledge based on her own experiences and that of other clients. These resources then help the client determine whether to “start-up” and pursue the venture concept, or whether to “return to the drawing board” by rejecting or refining the concept as appropriate. Note that “start-up” here is to be distinguished from “Launch” as the latter involves starting the actual sale of the product, whereas the former should be viewed as the start of gathering the appropriate resources necessary for launch. In terms of the framework established by Shane and Venkatraman above, this stage could be viewed as verifying the validity of the perceived entrepreneurial opportunity.

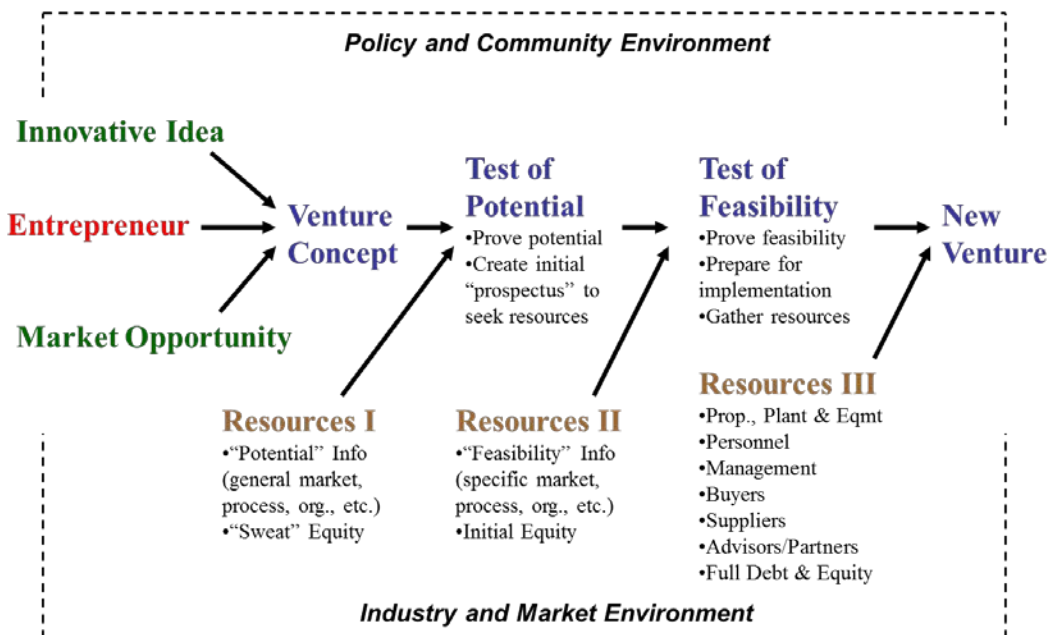
After this “start-up” has occurred, the next step in Product Center’s framework is the “test of potential.” This test involves a more in-depth analysis using resources such as the specific market processes, organizational structure, and equity involved in order to prove the existence of the potential conjectured in the previous stage. This information, in addition to the explicit knowledge provided by the Product Center relevant to the venture and the tacit knowledge of the counselor, then allows the entrepreneur to make a better informed decision on whether to take the steps necessary to exploit the perceived entrepreneurial opportunity. In this way, the EAP can help to overcome some of the problems associated with the cognitive bias issues often involved in this decision by acting as the “safety net” or counterbalance to keep such biases in check. If the decision is made, the entrepreneur will then create an initial “prospectus” to seek resources and the venture can be considered formed. This stage would be consistent with the Shane and Venkatraman decision to exploit the entrepreneurial opportunity.

Finally, once the venture is formed, but before it is launched, there is a final test of feasibility. At this stage, the Product Center assists the entrepreneur in proving the feasibility of the venture and preparing for implementation by providing the information on the resources necessary for launch as well as assisting the entrepreneur in accessing those resources. These resources are again provided in the form of explicit Product Center documents, the tacit knowledge of the counselors and specialized

service staff, but also includes utilization of the broader network of internal and external partners, such as different service oriented departments on campus (e.g. packaging, legal counseling), as well as leveraging the relationships built by the Product Center with lenders, distributors, producers, co-packers and retailers. At this point, the entrepreneur must make the final decision as to whether or not to execute his plan and launch the venture, consistent with the Shane and Venkatraman execution stage. A successful launch can then be considered a new venture, its success and survival to be determined on the validity of the underlying opportunity, the quality and access to the appropriate resources for operation and the ability of the entrepreneur to manage the operation.

From this discussion, it appears that the method by which the Product Center, as a representative EAP, assists entrepreneurs in the promoting the success and survival of new ventures is through providing the appropriate information and resources necessary to make more effective decisions at each stage of the entrepreneurial process framework (see figure 2 below).

## A FRAMEWORK FOR NEW VENTURE CREATION



**Figure 2:** Empirically induced new venture framework from the Product Center

## **Empirical Support**

Previous work has supported this claim by finding that clients often report the most valuable service they received from the Product Center was the ability to use the innovation counselor as a “sounding board” or “reality check” to test their innovative ideas. This work also found that many clients reported that lenders were more willing to give them a loan after having gone through the Product Center process and that Product Center clients were significantly more likely to report higher satisfaction with the efficiency of their operations than non-Product Center clients in similar industries (Lovgren, 2010).

In addition to this, from the 2008 Customer Demographic and Satisfaction Survey, a five point Likert scale was also used to measure satisfaction levels (with 1 indicating low satisfaction, and 5 indicating high satisfaction) of the clients. The results was an average overall satisfaction level of 3.76 out of 5, indicating that the majority of the clients were at least moderately satisfied with the services provided, but regression results on the ability to follow up on requests (from the 34 who responded to this question) indicated that those respondents who have been working on their idea for a longer period of time, have not yet launched, had higher household incomes but less management experience, were significantly more likely to give positive satisfaction ratings.

## **Discussion**

While the admittedly small sample size must caution against drawing any strong conclusions from this data, this case study of the MSU Product Center does provide support for the hypothesis that EAPs assist entrepreneurs by helping to supplement the entrepreneur’s knowledge and access to resources in order to make more effective entrepreneurial decisions. It is logical to assume that those with less management experience might have less information on how to successfully execute a new venture. The same holds true for those who have spent a lot of time on an idea but have not yet

launched their product, as this might indicate there is some critical obstacle preventing the launch that they do not have the appropriate knowledge or resources to overcome.

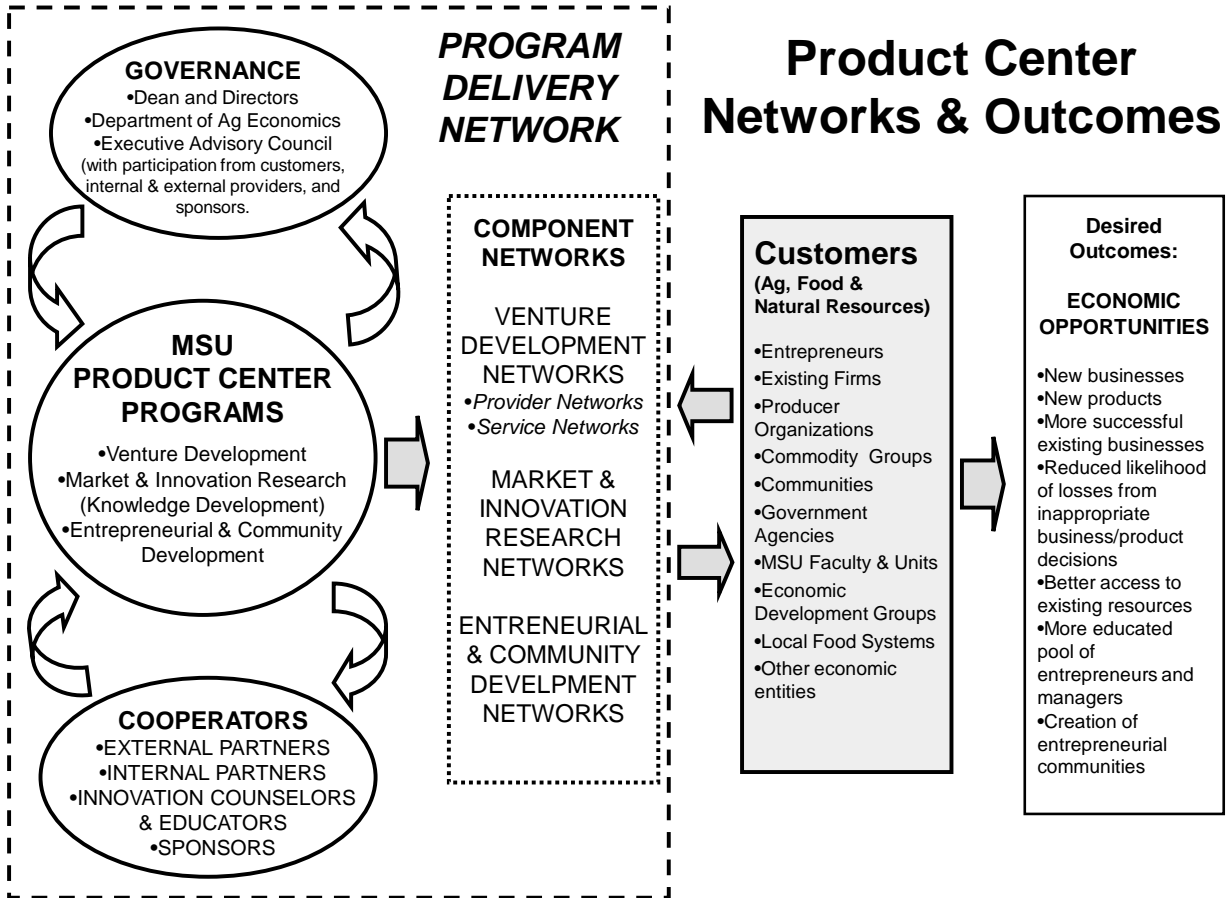
In addition, the bi-modal distribution of investment required and the resulting size of the firm (based on number of employees) gives support that Product Center services both lifestyle and innovative entrepreneurs, with the former likely composing the majority of the small investment, no-employees group and the latter comprising more of the larger investment and employer group. However, further research with a larger sample size will need to explore these ideas in greater detail to increase the validity of these conclusions.

In summary, the empirically induced framework developed by the Product Center in determining how to best assist entrepreneurs is well encompassed by most, but not all of the Shane (2003) entrepreneurial process framework. In particular, the role of the EAP to provide appropriate resources and information to help entrepreneurs make effective decisions at the critical stages of evaluating an entrepreneurial opportunity, determining whether to exploit and how to properly execute that opportunity fit very well with the framework developed by Shane. However, that the Shane framework suggests that an enterprising individual discovers exogenous opportunities and does not influence the opportunity itself seems insufficient to adequately explain the observed entrepreneurial behavior of Product Center clients. While the discovery model holds in some cases, it appears much more common for an individual's innovative idea to drive the process of attempting to create an entrepreneurial opportunity prior to any attempt at discovery. Furthermore, it is evident that in some cases an entrepreneur without an idea or market opportunity will initiate the process of searching for the other two as well. In any case, only once the three elements combine is a venture concept created and the rest of the process proceeds.

As a result of this analysis, our research suggests two potential avenues for future research on the entrepreneurial process. First, we argue that a significant role of an EAP is to provide a check to the entrepreneur's perception of the value and certainty of their identified opportunity. This check, in the long run, not only provides a signal to the marketplace about the viability of this opportunity but it also limits the waste of productive resources. Whether this finding is supported in other EAPs is an important policy question. Furthermore, in terms of the entrepreneurial opportunity, the experience of the MSU Product Center suggests that entrepreneurs themselves may be a source of entrepreneurial opportunities in addition to those that may exist in the marketplace and have just yet to be exploited. This distinction is an important one and one that should be explored further. In particular, is there a role for EAPs in supporting the creation of entrepreneurial opportunities and what are the performance differences that result from these two types of entrepreneurial opportunities?

## Appendix:

**Figure 1:** Overview of Product Center Networks & Outcomes



**Table 1:** Probit regression on Product Center’s ‘s Satisfaction with Counselor’s ability (timeliness) to follow up on requests (1 – satisfied, 0 – not satisfied)

Probit regression	Number of obs	=	34
	Wald chi2(9)	=	22.90
Log pseudolikelihood = -13.78996	Prob > chi2	=	0.0064

IC_timely	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Age	-.0056038	.0108074	-0.52	0.604	-.0267861	.0155784
Educ	.0055805	.1621518	0.03	0.973	-.3122311	.3233922
Income	.3445888	.1457563	2.36	<b>0.018</b>	.0589118	.6302658
East	.229203	.6003882	0.38	0.703	-.9475362	1.405942
exper	-.2740341	.1241749	-2.21	<b>0.027</b>	-.5174124	-.0306559
investment	2.41e-06	3.58e-06	0.67	0.502	-4.61e-06	9.42e-06
hh	-.4808163	.5278117	-0.91	0.362	-1.515308	.5536757
time_idea	.3473457	.2103713	1.65	<b>0.099</b>	-.0649745	.7596658
launched	-1.078434	.6126891	-1.76	<b>0.078</b>	-2.279282	.1224147

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<sup>i</sup> Note that this depiction is consistent with the view expressed by Schumpeter (1934).