# STRATEGY

# OPPORTUNITY RECOGNITION: PERCEPTIONS OF HIGHLY SUCCESSFUL ENTREPRENEURS<sup>1</sup>

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#### ABSTRACT

This study examined multiple dimensions of opportunity recognition (OR) among a group of exceptionally successful entrepreneurs and a control group of more randomly selected entrepreneurs. There were few differences between the two groups. Results indicated that OR stemmed from prior experience, focusing on markets and customers, and responses to specific problems along with several other sources. Furthermore, OR appeared to be a multiple-step process far more frequently than a "eureka" experience. These results support much of the conventional wisdom about OR and indicate that multiple approaches to OR can lead to success.

## INTRODUCTION

Opportunity recognition (OR) has long held a prominent position in entrepreneurship theory and has more recently become a central focus of entrepreneurship research (e.g., Gaglio & Katz, 2001; Kirzner, 1973, 1979; Shane & Venkataraman, 2000; Venkataraman, 1997). The importance of OR is demonstrated by the fact that basic definitions of entrepreneurship allude to opportunity recognition (OR) as central to the phenomenon. For example, Kirzner (1973) argued that the discovery of opportunities is the core issue of entrepreneurship. According to Kirzner, entrepreneurs find and exploit opportunities by taking advantage of economic disequilibria by knowing or recognizing things that others do not. Although OR is an essential step in the early stages of formulating and launching a new venture, OR may also occur to greater or lesser degrees throughout the life of the enterprise and the life of the entrepreneur (Ronstadt, 1988, Weinzimmer, Fry & Nystrom, 1996).

While OR has been prominent within theories of entrepreneurship, researchers have only recently begun to report the results of empirical studies on OR. That empirical research supports a number of different views of the opportunity recognition process, but a comprehensive model of OR has not yet emerged (Lumpkin, Shrader & Hills, 2001). The purpose of this exploratory study, therefore, is to contribute to a more complete view of OR

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by examining this phenomenon in a comprehensive fashion that builds upon several diverse perspectives of the process.

## LITERATURE REVIEW

Significant contributions have been made in conceptualizing the phenomenon of OR and empirical studies have begun to generate a fundamental understanding of this important phenomenon. However, there is little agreement about the sensitivity of entrepreneurs to opportunities, the cognitive processes they use to identify opportunities, or their self-perceptions regarding this phenomenon. This literature, which is fragmented and sometimes appears contradictory, will be summarized below.

In one of the earliest relevant writings in the entrepreneurship field, Vesper (1980) cited several ways that new venture ideas may be identified and suggested that OR is the result of a deliberate and systematic search effort. Christensen, Madsen, and Peterson (1989; p. 3) defined OR as, "either a) perceiving a possibility to create new businesses or b) significantly improving the position of an existing business, in both cases resulting in new profit potential." According to Kirzner, entrepreneurs find and exploit opportunities by taking advantage of economic disequilibria by knowing or recognizing things that others do not (Kirzner, 1973). Likewise, Fiet (1996), Shane (2000), and Eckhardt and Shane (2003) emphasized the role of knowledge in OR. Cooper (1981) suggested that entrepreneurs informally and intuitively perceive opportunities based upon some "feel" for the market. Koller (1988) reported that most entrepreneurs recognized, rather than sought opportunities. Stevenson, Roberts, and Grousbeck (1985) suggested that entrepreneurship is driven by perception of opportunity, rather than resources controlled. To this end, Stevenson and Jarillo-Mossi (1986) view entrepreneurship as the process of creating value by combining resources to exploit an Eckhardt and Shane (2003) discussed multiple sources of entrepreneurial opportunity. opportunities.

Long and McMullan (1984) proposed a model of the opportunity identification process with four stages including pre-vision, point of vision, opportunity elaboration, and the decision to proceed. Pre-vision is affected by both uncontrollable and controllable factors such as environmental and job forces as well as venture alertness cultivation, moonlight venturing, and job selection (p. 575). Two exploratory studies provided empirical evidence in support of this model.

Kaish and Gilad (1991) tested three hypotheses derived from the theoretical writings of Kirzner (1979) and compared 51 founders of companies with 36 executives in a large company. Entrepreneurs spent more time searching for information in their off hours, employed different information sources than executives and paid special attention to risk cues about new opportunities. The findings reinforced the idea that entrepreneurs are opportunistic learners, but not necessarily in a verbal, social networking manner.

Teach, Schwartz and Tarpley (1989) examined how software firms identified their first market opportunities with a field survey. Statements about the recognition of opportunities were analyzed and four distinct clusters were found. The Searchers believed in doing one's homework as part of a deliberate search process; the Pin Stripes had a strong commitment to formal planning and evaluation processes; the Innocents developed their software on their own time, not on that of their employer; and the Blue Jeans saw product development as an accidental process and eschewed formal planning and evaluation.

Christensen and Peterson (1990) examined the sources of new venture ideas using four structured case field studies with 15 ventures and a survey of 76 companies. They concluded

that specific problems and social encounters are often a source of venture ideas, but also that profound market or technological knowledge is a prerequisite for venture ideas.

Gaglio and Taub (1992, pp. 136-147) examined whether the concept of entrepreneurial alertness to new business opportunities can be operationalized as a set of unique cognitive skills and strategies. A small sample of business owners and corporate managers was presented with an ambiguous business situation and asked to search for new business opportunities or ideas. The analysis found that the two groups appeared to approach the task differently.

Bhave (1994), as part of his process model of venture creation, found two types of OR. First was externally stimulated OR, where the decision to start a venture preceded OR. These entrepreneurs engaged in a search for opportunities with filtration of opportunities, massaging of ideas, and elaboration. Opportunistic search, as cited by Cyert and March in 1963, was pursued. An alternative path was internally stimulated OR. Here the entrepreneurs discovered problems to solve or needs to fulfill and only later decided to create a venture and become an entrepreneur.

In summary, the literature highlights the importance of OR to entrepreneurship and offers numerous insights into the OR process from diverse perspectives. However, no comprehensive, widely accepted theoretic model of OR has emerged and the literature suggests few empirically testable hypotheses. Despite this, several themes have emerged as important. For example, it has been shown that different entrepreneurs place varying emphasis on different OR activities. Entrepreneurial alertness is an important stimulant of OR and evaluation of ideas is an important part of OR. Different entrepreneurs rely to varying degrees on different sources and causes of opportunities. Finally, the literature suggests that while some scholars view OR as a one time "eureka" experience, others view OR as a process over time.

This study builds upon these theoretical and empirical foundations and examines multiple dimensions of opportunity recognition (OR) in a comprehensive fashion. To shed additional light on the topic, we studied two groups of highly successful entrepreneurs. Our objectives were to: a) identify the variety and quantity of OR approaches used by these entrepreneurs, b) measure self-perceived entrepreneurial alertness; c) test often proposed fundamental causes and sources of entrepreneurial opportunities, d) explore OR as a process with many related issues, and e) measure the relative importance of several potential causes and sources for OR. Given the exploratory nature and breadth of the study, only descriptive findings will be presented. Discussion of practical implications of the findings will be emphasized throughout the results section.

### METHODOLOGY

For one segment of this project, a group of exceptionally successful entrepreneurs in the seven-county Chicago area were identified and sampled. Over a three-year period, more than 100 entrepreneurs were identified, both for this study and to be inducted into the Chicago Area Entrepreneurship Hall of Fame. Trained MBA students (who possessed prior business experience) applied qualitative and quantitative rating scales and then faculty and professional staff also rated the entrepreneurs. The better candidates were then personally interviewed and rated by Arthur Andersen Enterprise Group professionals, using a questionnaire developed by the second author. Finally, all of the finalists' information was sent to a distinguished panel of judges, comprised of private sector professionals and previously inducted entrepreneurs, who made the final selection. Leading criteria for selection included innovativeness, sales growth, and financial performance. Those selected were stellar entrepreneurs by any measure and 53 participated in this study.

Data for the second segment of the study were collected by mail survey of business owners/entrepreneurs in the seven-county Chicago area, yielding a comparative, more random sample. The sampling frame for this portion of the study was obtained from Dun and Bradstreet (D&B). They randomly selected 1,500 organizations (from a total of 18,000) with revenues between \$5 and \$100 million. A cover letter and questionnaire were mailed to 1,419 entrepreneurs from the list. Eighty-one of the individuals were eliminated due to the entity either being a non-profit organization or the contact individual not being the owner, president, or CEO. Following the first mailing, another 128 of the 1,419 in the sample were eliminated because: 1) The firm had either moved or gone out of business and had not provided a forwarding address; 2) The individual to whom the survey was addressed was no longer with the firm; or 3) The business entity was a non-profit organization. This left a total potential sample of 1,291 businesses. Following the mail survey and one post card follow up, 187 useable surveys were returned for a response rate of 14.5 percent. A comparison of respondents to non-respondents revealed that there was little difference between the two groups. Revenues and number of employees are nearly identical.

Five focus groups provided a rich discussion of OR and related issues that aided in questionnaire design. In addition to numerous new items, the questionnaire replicated and modified selected items from the above noted studies by Teach, Schwartz and Tarpley; Christensen and Peterson; and Kaish and Gilad. The questionnaire was extensively pre-tested.

## Sample Profiles

Completed questionnaires were obtained from 53 members of the Chicago Area Entrepreneurship Hall of Fame (EHF). They averaged \$42 million in annual revenues and 371 employees. One hundred, eighty-seven usable responses were received from the randomly sampled entrepreneurs (RSEs). However, six franchisees and any respondents who were not founders, cofounders, or who had not started a "major, new part of (the) business" were deleted. This left 165 respondents, whose companies averaged \$16.7 million in annual revenues and 121 employees.

#### RESULTS AND DISCUSSION

## **OR Behaviors**

It may be seen in Table 1 that both groups of entrepreneurs have considerable experience with opportunities. Nearly all of them have pursued major, new business opportunities in the past five years, with approximately one-third of both groups having pursued 3-4 opportunities and another quarter of both groups having pursued 5-10 opportunities. It may be seen that 12 and 13 percent, respectively, pursued more than 10 major, new business opportunities in the past five years. Although the success rates are by definition lower than the sheer pursuit of opportunities, 16/18 percent of the EHF and RSE samples had five or more successes and 80/74 percent had 1-4 successes. Forty percent of the EHFers had 3-4 successes as compared to 23 percent of the RSEs. But this is the only notable difference concerning successes. It is striking that so many of the opportunities pursued were unrelated to their existing businesses at the time and this is more often the case for the EHFers than the RSEs.

More fundamental OR behaviors include founding/co-founding companies: 78/68 percent; starting a major, new part of the business: 90/95 percent; and acquiring any new type of business: 29/45 percent. Acquisitions are slightly more common among the RSEs and the EHFers are more often founders. The RSEs, it must be remembered, have at least \$5 million in sales, and this is one indicator of considerable success. Both groups are clearly opportunistic.

TABLE 1
OR Behaviors: Entrepreneurship Hall-of-Famers (EHF)
and Randomly Sampled Entrepreneurs (RSE)

ITEM			EHF					RS	E	
112141	0	1-2	3-4	5-10	>10	0	1-2	3-4	5-10	>10
How many new, major business opportunities have you pursued (invested time and money) in the last 5 years?	2%	<b>2</b> 9	33	24	12	1%	30	29	27	13
How many of these new business opportunities can be said to be successes?	4	40	40	12	4	7	51	23	15	3
How many of these new business opportunities were unrelated to the existing business at that time?	28	42	21	9	0	56	30	10	2	2
		YES		NO			YES		NO	
Did you have any ideas that could have become a new business (or a significant part of a business) in the past:  MONTH/YEAR		78/ 88		22/ 12			60/ 88		40/ 12	
Other than ideas for starting a business (or a major expansion of), have you identified any other types of significant opportunities in the past: MONTH/YEAR		50/ 71		50/ 29			71/ 92		29/ 8	
Are you the original founder/cofounder of your business?		78		22		-	68		32	
Did you start any major, new part of your business?		90		10			95		5	
Have you <u>acquired</u> any <u>new</u> type (at the time) of business?		29		71			45		55	

# **Self-Perceived Entrepreneurial Alertness**

Table 2 provides results related to respondents' self-perceptions of entrepreneurial alertness. The overall conclusion from both samples is that entrepreneurs strongly see themselves as "entrepreneurially alert." Overwhelmingly, the respondents indicate that they have a "special alertness" toward opportunities; describe themselves as opportunistic; see new business opportunities "naturally;" and even enjoy casually thinking about new opportunities. The full percentage distributions are shown to aid in practical interpretation of the results. Although statistically significant t-tests are shown, the clear message from Table 2 is of similarities rather than differences and of strong, clear results from both samples.

These results raise the question: To what extent, if at all, is opportunity alertness an important characteristic of successful entrepreneurs? Although the entrepreneurship field was "born" with numerous studies of the psychological characteristics of entrepreneurs, and despite the lack of success in documenting such characteristics, these results demand systematic study of this variable as a potential psychological and/or behavioral characteristic. While alertness may be an inborn psychological trait, an alternative hypothesis, however, is that entrepreneurial alertness may be a learned behavior. These opposing hypotheses, in turn, raise questions about whether alertness can be taught.

TABLE 2
Self-Perceived Entrepreneurial Alertness:
Entrepreneurship Hall-of-Famers (EHF) and Randomly Sampled Entrepreneurs (RSE)

	EHF							
ITEM		PA	N	PD	SD	MEAN		
I have a special alertness or sensitivity toward opportunities.	51%	30	13	6	0	1.74		
I would describe myself as opportunistic.	53	27	8	4	8	1.88		
"Seeing" potential new business opportunities does not come very naturally for me.	4	6	12	20	58	4.22*		
I enjoy just thinking about and/or looking for new business opportunities.	46	34	18	0	2	1.78		
I often think of new business ideas when I am totally relaxed, doing something unrelated to business.	43	27	20	6	4	2.00		
			I	RSE	<b>.</b>	·		
I have a special alertness or sensitivity toward opportunities.	50%	35	14	1	0	1.65		
I would describe myself as opportunistic.	44	33	18	4	1	1.85		
"Seeing" potential new business opportunities does not come very naturally for me.	L	15	12	41	32	3.89*		
I enjoy just thinking about and/or looking for new business opportunities.	42	34	14	7	4	1.97		
I often think of new business ideas when I am totally relaxed, doing something unrelated to business.	33	38	14	9	6	2.16		

SA=Strongly Agree=1 PA=Partly Agree=2 N=Neutral=3 PD=Partly Disagree=4 SD=Strongly Disagree=5

<sup>\*</sup> Based on a t-test of the difference in means, there is a statistically significant difference at the .10 level.

## Causes of Entrepreneurial Opportunities

As shown in Table 3, 91/95 percent of the EHF/RSEs agree that new business opportunities often arise in connection with a solution to a specific problem. More than half of both groups strongly agree. The significance of these results could easily be lost. The intensity of these responses, however, suggests that the probabilities of entrepreneurial success may be enhanced by commercializing a solution to a heartfelt problem rather than following the conventional wisdom of merely "satisfying a need."

A second fundamental cause of opportunity arises from market changes and customers. Fully 68/73 percent of the EHF/RSEs agreed that their own business was derived from a market driven idea and 84/91 percent affirmed that they listen "extremely well to what customers say" as a way of identifying opportunities. Seventy-five percent of the RSEs knew who the first customers would be before introducing their first product/service.

Finally, technology as a basic cause of opportunity is addressed in Table 3. Only 29 percent of the EHFers agreed that "the idea for (their) business was mostly technology driven," although 38 percent of the RSEs agreed. So technology as a basic cause of opportunity has some support, although only 14 percent of both groups strongly agreed. Fully 59 percent of the EHFers strongly disagreed. So, although technological change can be critically important for many opportunities, it is far less important, in general, than markets.

These findings suggest that focusing on market and customers increases the probability of recognizing entrepreneurial opportunities. They also suggest that while technology leads to many entrepreneurial opportunities, it is selectively rather than pervasively important. Other factors, such as technical strength of the entrepreneur, may determine the relevance of technology as a fundamental cause of opportunity.

# Importance of Venture Ideas, Individualism, and Creativity

A "venture idea" is not necessarily an "opportunity." But it is still striking that 58/69 percent of the EHF/RSEs in Table 4 agreed that "new venture ideas are a dime a dozen. Evaluation is the key." Also, 52 percent of both groups agreed that, "the problem is not to get the venture idea, but to get capital and other resources." Here, however, approximately one-third disagreed. This suggests that recognizing venture ideas by itself is but one step in the opportunity recognition process.

Also, in Table 4, there are bimodal distributions as to whether or not "the business was strictly my idea alone." Although 42/46 percent agreed, many disagreed. At their current stage of development, the entrepreneurs indicate that other people commonly bring new venture business ideas to them. These items suggest that individualism may still play a major role but that networking is also important.

The findings regarding creativity are clearer. These entrepreneurs strongly see themselves as creative; 90/88 percent agreed that "creativity is very important to identifying business opportunities," and about half say they set aside a few minutes each day or week to be creative. Finally, well over half of the entrepreneurs in both groups (53/61 percent) indicated that their business idea was developed in connection with employment with another firm.

TABLE 3
Fundamental Sources of Entrepreneurial Opportunities:
Entrepreneurship Hall-of-Famers (EHF) & Randomly Sampled Entrepreneurs (RSE)

,	EHF					
ITEM	SA	PA	N	PD	SD	MEAN
New business opportunities often arise in connection with a solution to a specific problem.	53%	41	2	2	2	1.60
The idea for my business was mostly market driven.	25	43	6	10	16	2.51**
I listen extremely well to what customers say they want and don't want as a way of identifying opportunities.	61	23	10	6	0	1.61
I knew who the first customers would be before introducing our first product/service.	23	28	6	17	26	2.94****
The idea for my business was mostly technology driven	14	15	6	6	59	3.82**
				RSE		
New business opportunities often arise in connection with a solution to a specific problem.	56%	39	3	2	0	1.51
The idea for my business was mostly market driven.	43	33	9	6	9	2.05**
I listen extremely well to what customers say they want and don't want as a way of identifying opportunities.	67	24	6	3	0	1.44
I knew who the first customers would be before introducing our first product/service.	52	23	4	12	9	2.04****
The idea for my business was mostly technology driven	14	24	14	15	33	3.29**

Based on a t-test of the difference in means, there is a statistically significant difference at the .05 level.

## Process, Deliberate Search, Spin-Offs, and Immersion

Perhaps the most important finding was that 92 percent of the RSEs agreed that, "identifying opportunities is really several learning steps over time, rather than a one time occurrence." Eighty six percent of the EHFers also agreed (see Table 5). This finding indicates that OR is a process over time and should be approached accordingly. They also suggest that time should be allowed for the chance of encountering and evaluating opportunities.

Although more than half disagreed that "the idea behind the business just seemed to suddenly appear," 41 percent of the EHFers agreed. Most disagreed (69 percent in both groups) that the venture idea came from an accidental process. Thirty-eight percent of the EHFers "made a deliberate effort to search for an idea to start a business," but 54 percent did not. This general

<sup>\*\*\*\*</sup> Based on a t-test of the difference in means, there is a statistically significant difference at the .001 level.

finding is also true of the RSEs. Thus, it appears that while opportunities are often perceived in a random/accidentalmanner, systematic search may be helpful as well.

TABLE 4
Importance of Venture Ideas, Individualism, Creativity and Sources: EHFers and RSEs

	ЕНБ								
ITEM	SA	PA	N	PD	SD	MEAN			
New venture ideas are a dime a dozen. Evaluation is the key.	25%	33	10	19	13	2.60**			
The problem is not to get the venture idea, but to get capital and other resources.	25	27	12	16	20	2.82			
Other people bring new venture business ideas to me.	25	35	23	13	4	2.35			
The business idea was strictly my idea alone.	16	26	14	6	38	3.24			
Being creative is very important to identifying business opportunities.	50	40	8	2	0	1.63			
I am not a very creative person.	2	13	11	17	57	4.15			
I set aside a few minutes each day or week to be creative.	23	26	19	13	19	2.79			
Our venture idea came from an accidental process that just happened to uncover the concept.	6	19	6	27	42	3.79			
Our business/venture idea was developed in connection with employment with another firm.	31	22	8	4	35	2.90			
			RSE						
ITEM	SA	PA	N	PD	SD	MEAN			
New venture ideas are a dime a dozen. Evaluation is the key.	25%	33	10	19	13	2.16**			
The problem is not to get the venture idea, but to get capital and other resources.	25	27	12	16	20	2.68			
Other people bring new venture business ideas to me.	25	35	23	13	4	2.49			

The business idea was strictly my idea alone.	37%	32	14	11	6	2.96
Being creative is very important to identifying business opportunities.	18	34	18	20	10	1.60
I am not a very creative person.	14	44	26	11	5	4.05
I set aside a few minutes each day or week to be creative.	22	24	11	23	20	2.68
Our venture idea came from an accidental process that just happened to uncover the concept.	58	30	6	4	ı	3.98
Our business/venture idea was developed in connection with employment with another firm.	3	9	15	25	48	2.55

SA=Strongly Agree=1 PA=Partly Agree=2 N=Neutral=3
PD=Partly Disagree=4 SD=Strongly Disagree=5

Regarding opportunity idea spin-offs, both groups strongly recognize that opportunities often lead to other opportunities. Knowledge and insights in one context often lead to other venture ideas. Very importantly, there is strong support for "immersion" in a particular industry and marketplace. The basic idea underlying Ronstadt's Corridor Principle (1988) receives further support with 95 percent in both groups agreeing that, once in the market, one must be prepared to quickly adjust a new product or service to what the market requires. The importance of customer feedback is clear. These findings suggest that value of qualitative "immersion" in a marketplace cannot be replaced by formal market research. Entering a market with a new product/service demands flexibility and responsiveness in the expectation that changes in strategy will be required. As helpful as business plans and feasibility studies may be, there is a danger if they lead to over-commitment to a specific product/service and strategy. The results here clearly underscore the critical importance of actual market feedback. Necessary changes should be expected.

## Importance of Sources for Major Ideas

In Table 6, sources for identifying major new business ideas are rated in importance, and some of the more important sources are customers, employees, suppliers, and professional acquaintances. Some of the less important are patent filings, technical literature, libraries, distributors, consultants, investors, and hobbies. Prior employment here yielded only mixed results. These results suggest that it is helpful to focus on certain sources of venture opportunities, particularly those providing insights into industries/markets including customers, suppliers, employees and professional acquaintances, as a way to find opportunities.

<sup>\*\*</sup>Based on a t-test of the difference in means, there is a statistically significant difference at the .05 level

TABLE 5
Opportunity Recognition Processes, Deliberate Search, Spin-offs and Immersion: EHFers and RSEs

	енғ						
ITEM	SA	PA	N	PD	SD	MEAN	
Identifying opportunities is really several learning steps over time, rather than a one-time occurrence	44%	42	10	0	4	1.78**	
The business opportunities I have identified over the years have been largely unrelated to one another.	14	16	4	33	33	3.57	
I have found that the consideration of one opportunity rarely leads to other opportunities.	4	4	12	27	53	4.22	
Identifying good opportunities usually requires "immersion" in a particular industry and marketplace.	26	42	10	16	6	2.34	
Once in the market, one must be prepared to quickly adjust a new product/service to what the market requires.	91	4	0	2	2	1.20	
Upon entering the market with a new venture, I made major changes based on customer feedback	n/a	n/a	n/a	n/a	n/a	n/a	
It is easier to see the real opportunities after you begin to enter a market (as compared to before you start).	n/a	n/a	n/a	n/a	n/a	n/a	
The idea behind this business just seemed to come suddenly appear	10	31	6	6	47	3.49	
I/We made a deliberate effort to search for an idea to start a new business	26	12	8	22	32	3.22	
Our venture idea, or a closely related one, was actually seen in another context.	7	37	7	14	35	3.33	
			RS	SFs			
Identifying opportunities is really several learning steps over time, rather than a one-time occurrence	61%	31	5	2	1	1.50**	
The business opportunities I have identified over the years have been largely unrelated to one another.	7	19	10	39	25	3.57	
I have found that the consideration of one opportunity rarely leads to other opportunities.	1	10	6	35	48	4.18	
Identifying good opportunities usually requires "immersion" in a particular industry and marketplace.	28	36	13	14	9	2.40	
Once in the market, one must be prepared to quickly adjust a new product/service to what the market requires.	71	24	3	2	0	1.36	
Upon entering the market with a new venture, I made major changes based on customer feedback	23	40	19	12	6	2.38	

It is easier to see the real opportunities after you begin to enter a market (as compared to before you start).	38	41	10	5	6	1.99
The idea behind this business just seemed to come suddenly appear	7	24	7	26	37	3.65
I/We made a deliberate effort to search for an idea to start a new business		13	16	20	33	3.37
Our venture idea, or a closely related one, was actually seen in another context.	11	25	23	16	25	3.21

SA=Strongly Agree=1 PA=Partly Agree=2 N=Neutral=3
PD=Partly Disagree=4 SD=Strongly Disagree=5

TABLE 6
Source Importance for Identifying Major New Business Ideas: Rank Order

	ЕНБ							
ITEM	VI	SI	NI	MEAN				
Customers/clients	75%	25	0	1.25				
Employees	59	37	4	1.45**				
Professional acquaintances	41	49	10	1.69				
Suppliers	47	35	18	1.71				
Trade publications	40	38	22	1.82***				
Magazines/newspapers	26	51	23	1.98****				
Family	32	22	46	2.14*				
Prior employment	25	29	47	2.22**				
Consultants	16	42	42	2.26***				
Distributors	18	32	50	2.32				
Personal friends	14	40	46	2.32				
Other	21	21	58	2.36				
Investors	14	32	54	2.40				
Technical literature	18	18	64	2.46				
Hobby	10	27	63	2.53**				
Libraries	8	14	78	2.70				
Patent Filings	10	6	84	2.73				
	RSFs							
Customers/clients	75%	20	5	1.30				
Employees	46	41	13	1.67**				
Professional acquaintances	44	43	13	1.68				

<sup>\*\*</sup>Based on a t-test of difference in means, there is a statistically significant difference at the .05 level.

Suppliers	44	37	19	1.75
Trade publications	11	57	32	2.22***
Magazines/newspapers	8	40	52	2.45****
Family	18	27	55	2.38*
Prior employment	41	28	31	1.89**
Consultants	6	34	60	2.55***
Distributors	21	34	45	2.24
Personal friends	11	41	47	2.37
Other	30	10	60	2.30
Investors	16	24	60	2.44
Technical literature	9	34	57	2.47
Hobby	6	13	81	2.76**
Libraries	2	24	74	2.71
Patent Filings	4	13	82	2.77

# **Evaluation of Opportunities**

Finally, Table 7 presents the results on the evaluation of new business opportunities. It may be seen that the entrepreneurs consider intuitive judgment or "gut feel" to be an extremely important part of judging market potential. Most of the entrepreneurs also agreed that, "the most important thing is to believe in the idea." Therefore, although formal market research may provide useful information, it is also important to recognize that the entrepreneur's collective, qualitative judgment must be weighted most heavily in evaluating opportunities.

#### CONCLUSION

This study has gone beyond any previous OR study in the breadth of variables studied, the size of the sample, and in reporting findings from two groups of high performing entrepreneurs. As a result, several issues of critical importance to understanding OR have been identified. Furthermore, results were consistent between the EHFers and the RSEs, which supports the validity of the overall findings. In general our findings support much of what other studies have concluded about OR.

While our study was exploratory and primarily descriptive in nature, our results lay a firm foundation for future theory building and empirical research. We consistently found that OR is a fairly complex process that unfolds over time, and is not necessarily a "eureka" experience that takes place at one moment in time. Instead, OR involves multiple steps, includes elements of evaluation and vetting ideas, and may sometimes include making adjustments midstream in response to specific customer feedback. Our results indicate that there are multiple influences on OR, and that there are multiple paths to the successful recognition of entrepreneurial opportunities. While the type of formal evaluation of ideas that is typically taught in business school plays a role in vetting ideas, successful entrepreneurs also place a great deal of importance on their own subjective gut instincts. Another profoundly important finding is that

TABLE 7
Evaluation of New Business Opportunities: Entrepreneurship Hall-of-Famers (EHF) and Randomly Sampled Entrepreneurs (RSE)

	EHF						
ITEM	SA	PA	N	PD	SD	MEAN	
The most important thing is to believe in the idea.	56%	29	7	4	4	1.71	
Our company experiments with new venture ideas which results in both failures and successes.	40	42	8	4	6	1.92	
One's own intuitive (or "gut feel") is often the most important part of judging market potential for a new product.	0	9	5	24	62	1.74***	
In-depth, formal customer surveys are usually more costly than can be justified.	22	22	22	15	19	2.97	
It is often better to enter a market and, if necessary, make changes than to take the time and money to first do formal marketing research.	31	12	15	23	19	2.83	
In-depth market analysis is often used more for impressing financial sources than for actual decision making.	17	17	16	30	20	2.93	
			RSFs				
ITEM	SA	PA	N	PD	SD	MEAN	
The most important thing is to believe in the idea.	41%	38	14	5	2	1.90	
Our company experiments with new venture ideas which results in both failures and successes.	35	42	13	9	1	1.99	
One's own intuitive (or "gut feel") is often the most important part of judging market potential for a new product.	15	48	16	16	5	2.48***	
In-depth, formal customer surveys are usually more costly than can be justified.	12	23	28	25	12	3.01	
It is often better to enter a market and, if necessary, make changes than to take the time and money to first do formal marketing research.	9	23	26	22	20	3.23	
In-depth market analysis is often used more for impressing financial sources than for actual decision making.	17	17	16	30	20	2.93	

SA=Strongly Agree=1 PA=Partly Agree=2 N=Neutral=3 PD=Partly Disagree=4
SD=Strongly Disagree=5

<sup>\*\*\*</sup> Based on a t-test of difference in means, there is a statistically significant difference at the .001 level.

successful entrepreneurs immerse themselves in their industries and operating environment as a means of developing insights into their markets. These insights then allow them to be highly responsive to specific needs of customers. While formal market research may have some value, industry experience and networking with customers, suppliers, employees, and professional acquaintances are the most important sources for identifying new business ideas representing potential opportunities. One of the more interesting findings was that technology did not play a major role in the recognition of opportunities among these samples of stellar entrepreneurs. This suggests that academics or practitioners who emphasize technological innovation as a major cause of entrepreneurship may, in fact, see only a small portion of the overall picture regarding entrepreneurial opportunities.

Alertness to opportunities also played a central role in the OR process among our sample. There was uniform agreement across multiple measures that these highly successful entrepreneurs perceived themselves to be particularly alert to potential opportunities. Alertness is a critically important element of OR, because without it, potential entrepreneurs could find themselves surrounded by stimuli that might otherwise spark ideas for new businesses, but never perceive those stimuli. Numerous interesting questions arise about the nature of entrepreneurial alertness them. Is alertness an inborn trait that distinguishes entrepreneurs from the rest of us, or is alertness a behavior that can be learned (and, consequently, taught)? What is the nature of alertness to other variables in the OR process? Is alertness the mechanism that triggers OR? Does alertness mediate the relationship between sources if opportunities and the recognition of those opportunities? Future research certainly should address these questions.

In conclusion, our research used a large sample to empirically validate several important building blocks for future theory and empirical research. It is our hope, then, that this work will stimulate additional research in this critically important area. Based on our findings, we would advise potential entrepreneurs to immerse themselves in an industry that they find interesting; establish strong network ties to players in that industry (especially customers); be alert to opportunities that might appear at random or as the result of systematic search; think creatively; evaluate ideas carefully, yet trust gut instincts; and not to be too focused on technology as the source of entrepreneurial opportunities. We believe future research will bear out the wisdom of this advice.

# REFERENCES

- Bhave, M. P. (1994). A process model of entrepreneurial venture creation, *Journal of Business Venturing*, 9, 223-242.
- Christensen, P. S., Madsen, O. O., & Peterson, R. (1989). Opportunity identification: The contribution of entrepreneurship to strategic management. Denmark: Aarhus University Institute of Management.
- Christensen, P. S. & Peterson, R. (1990). Opportunity identification: mapping the sources of new venture ideas, presented at the Babson Entrepreneurship Research Conference, Denmark.
- Cooper, A. C. (1981). Strategic management: New ventures and small business, *Long Range Planning*, 14(5), 39-45.
- Cyert, R. M. & March, J. G. (1963). A behavioral theory of the firm. Englewood Cliffs, NJ: Prentice Hall.
- Eckhardt, J. T & Shane, S. A. (2002). Opportunities and entrepreneurship, *Journal of Management*, 29(3), 333-349.
- Fiet, J. O. (1996). The information basis of entrepreneurial discovery, Small Business Economics, 8, 419-430.

- Gaglio, C.M. & Katz, J. (2001). The psychological basis of opportunity identification: Entrepreneurial alertness, *Journal of Small Business Economics*.
- Gaglio, C.M. & Taub, R.P. (1992). Entrepreneurs and opportunity recognition, in Frontiers of Entrepreneurship Research. Ed. N. C. Churchill. Wellesley, MA: Babson College, 136-147.
- Kaisch, S. & Gilad, B. (1991). Characteristics of opportunity search of entrepreneurs vs. executives: sources, interest, and general alertness, *Journal of Business Venturing*, 6, 45-61.
- Kirzner, I. M. (1973). Competition and entrepreneurship. Chicago, IL: University of Chicago Press.
- Kirzner, I. M. (1979). Perception, opportunity and profit. Chicago, IL: University of Chicago Press.
- Koller, R. H. (1988). On the source of entrepreneurial ideas, Frontiers of Entrepreneurship Research, Wellesley, MA: Babson College.
- Long, W. & McMullan, W. E. (1984). Mapping the new venture opportunity identification process, in *Frontiers of Entrepreneurship Research*. Ed. J. A. Hornaday. Wellesley, MA: Babson College, 567-590.
- Lumpkin, G.T., Shrader, R. C., & Hills, G. E. (2001). Entrepreneurial opportunity recognition: a creativity based model, Annual meeting of the Academy of Management.
- Ronstadt, R. (1988). The corridor principle, Journal of Business Venturing, 3, 31-40.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities, Organization Science, 11(4), 448-469.
- Shane, S. & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research, Academy of Management Review, 25(1), 217-226.
- Stevenson, H. H., & Jarillo-Mossi, J. C. (1986). Preserving entrepreneurships companies grow, Journal of Business Strategy, 7, 10-23.
- Stevenson, H. H., Roberts, M. J., & Grousback, H. I. (1985). New Business Ventures and the Entrepreneur. Homewood, IL: Irwin.
- Teach, R. D., Schwartz, R. G., & Tarpley, F. A. (1989). the recognition and exploitation of opportunity in the software industry: A study of surviving firms, in *Frontiers of Entrepreneurship Research*. Ed. R. H. Brockhaus. Wellesley, MA: Babson College, 383-397.
- Venkataraman, S. (1997). The distinctive domain of entrepreneurship, in Advances in Entrepreneurship: Firm Emergence and Growth. Ed. J. A. Katz. Greenwich, CT: JAI Press, 119-138.
- Weinzimmer, L. G., Fry, F. L., & Nystrom, P. C. (1996). the search for opportunities by small business owners, *Journal of Small Business Strategy*, 7(3), 1-14.
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