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Factors affecting the development of unassigned patents in Iowa

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FACTORS AFFECTING THE DEVELOPMENT OF UNASSIGNED PATENTS IN IOWA

An Abstract of a Thesis

Submitted

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

Diane Darlene (Wheeler) Schou

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ABSTRACT

Inventors granted patents from 1975 to 1990 in Iowa identified, via a questionnaire, where they perceived their invention on Bright's scale of eight stages of development. Stages were: idea, rationalization (has merit), experimentation, demonstration of prototypes, working model, commercial (market entry), commercial acceptance (sales), and commercial proliferation (other markets). The questions identified factors affecting development. The factors included: resources assisting development, events influencing start-up, sources of money for development, method of manufacturing, experiences with manufacturers, marketing techniques, sales, profit/loss, concerns, patent renewals, and age of patents. Open-ended questions allowed for additional comments.

Commercial acceptance or commercial proliferation was achieved by 46% of 311 persons who responded to the questionnaire. This was higher than the < 2% hypothesis. When compared to stages of development, the factors that associated with success included: inventors marketed their patented invention at trade-shows, income from the inventions totaled more than $500,000, and inventors manufactured (including subcontracting) and marketed their patented invention themselves. The success rate of inventors selling their invention to a marketer occurred with a frequency of only 1%.

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has been approved as meeting the thesis requirements for the Degree of Master of Industrial Technology.

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Date — Dr. Rex Pershing, Chair, Thesis Committee

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Date — Dr. Charles Johnson, Committee Member

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Date — Dr. Phyllis Conklin, Committee Member

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Date — Dr. John W. Somervill, Dean, Graduate College

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To the inventors responding to this survey.

To a spouse who gave support.

To a child who inspired me to get innovations into the market.

And to university faculty for their guidance and support in this study.

I thank everyone for contributions that helped to investigate factors affecting the development of patents. To all of you, I dedicate this thesis.

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CHAPTER I

INTRODUCTION

Quotes at workshops and writings for inventions suggested that 2% of all inventions successfully reach the market. Research has indicated a void in documented sources or persons to challenge the question, why do so many inventions fail to reach the market? The present study was an ex post facto exploratory field study of Iowa inventors in an attempt to answer this and other questions on invention development. Inquiries in a survey asked inventors for responses about their invention including: types of resources that assisted in development, factors that influenced the start or development, sources for money, manufacturing methods, experiences with manufacturers, marketing efforts, total sales, concerns as an inventor, and words of wisdom.

For encouragement to Iowans who have ideas and would like to pursue them, this study was limited to individually-owned (versus corporate-owned) patents. The study pursued inventions filed by Iowa residents with the United States Patent and Trademark Office. A written survey enabled the writer to reach many of the 1,445 Iowa inventors granted 1,842 patents from 1975 through 1990.

The survey facilitated contact with inventors and the completion of this study.

Statement of the Problem

The objective of this study was to identify the progress or stages of development of individually-owned Iowa inventions. Factors pertaining to the inventors' experiences were expected to affect the success of inventions according to a developmental curve. This study identified the stages in development of patented inventions individually owned (unassigned), and granted to Iowa inventors between 1975 and 1990.

One hypothesis of this study was that there are no factors that affect the stages of development of patented inventions. A second hypothesis of this study was that in Iowa less than 2% of patented inventions become a success (success defined as reaching stages seven, commercial acceptance or eight, commercial proliferation). Few (1 to 2%) inventions and patents ever become a success (Ziegler, 1991), but are there common points when development begins to cease?

Importance of the Study

The present study grew out of a personal desire to have several inventions and practical ideas for consumers and institutions patented. While developing these ideas, the writer felt a void of peer support, especially from

those with experience and success. The need and desire to learn from others provided the writer with an impetus to initiate this thesis.

There are books and magazines written by inventors with the purpose of offering assistance to inventors via their personal experiences. Lynn (1989) guides an imaginary toothbrush inventor through the steps starting with a log and continuing through the patent search and finally to distribution. Pressman (1988) described the process with a cautious legal viewpoint.

The writer met several inventors and learned about problems, possible solutions to these problems, and the successes. These conversations provided a valuable contribution to the writer to better understand product development. This background on situations was especially useful when meeting roadblocks other inventors had experienced. The hypothesis studied was that various demands limit development of inventions from concept to market. In evaluating this hypothesis, the writer graphed data on stages of inventions versus inventors' answers, and summarized the words of wisdom so others reading this thesis may benefit from Iowa inventors' experiences.

Agencies and institutions who may also benefit from this data include: Small Business Development Center (SBDC), Iowa Center for Industrial Research and Service

(CIRRAS), Service Corp of Retired Executives (SCORE), Small Business Administration (SBA), Iowa Department of Economic Development (IDED), Iowa's colleges (i.e. Hawkeye Institute of Technology and Indian Hills Community College) and universities (University of Northern Iowa, University of Iowa, and Iowa State University), and the United States Patent and Trademark Office.

Assumptions

In this study, the following assumptions were made: (a) If the 1-2% success rate was true, then of 1,842 inventions, 18 to 37 inventions should have been successful; (b) successes or failures were defined as the stage of development the patented invention have reached; (c) the individual inventor reflected on his or her invention and identified and responded to the appropriate stage of development; (d) Iowa inventors could be located and contacted; (e) Iowa inventors could read and could fill out the survey; (f) Iowa inventors listed on the patent were the true inventors; (g) efforts made to develop, manufacture, or market the invention may be determined; (h) the responses returned were representative of Iowa inventors; and (i) open-ended questions provided for more expressions of feelings. Open-ended questions were included so as not to confine responses to predetermined answers that may not apply. It was assumed that if the

inventor strongly thought a question needed a different answer, he/she wrote it in.

Limitations of the Study

The limitations of this study were: (a) locating Iowa inventors (this was a challenge as the patent office had sent out mailings to inventors and received very few responses from its mailings (Meyers, 1991)); (b) responses returned after the close of the survey (a minimum of eight weeks from initial mailing) were not included in the thesis; (c) surveys were mailed to inventors granted patents between January 1, 1975 and December 31, 1990; (d) surveys were mailed to inventors who were granted patents that were unassigned (versus patents assigned to a corporation such as an employer); (e) time, energy, and cost to conduct the survey, did not allow for locating inventors who moved.

CHAPTER II

LITERATURE REVIEW

Inventions develop from conception to profitable products in eight stages characterized by Bright (cited by Martin, 1984). Characteristics of inventors and applications of many skills and abilities to adapt and take a product to commercialization were reviewed based on Bright's eight stages--with simplified titles as follows:

1. Idea conception (with characteristics of inventors)
2. Idea rationalization
3. Idea experimentation and verification
4. Idea demonstration
5. Prototype and small scale production
6. Commercial--first introduction
7. Commercial--acceptance and marketing
8. Commercial--proliferation and product success

Idea Conception (with Characteristics of Inventors)

As was noted in Innovation in Iowa (Ziegler, 1991), few inventors develop patents into products. Only 1 to 2% of patents reach the marketplace. In addition, most patented items are rarely used in everyday life, and this is discouraging to potential inventors. Still, over the period from January 1975 to December 1990, 1,842 patents

were granted to Iowa residents. In 1988, (randomly picked as a typical year) Iowans were granted 337 out of 44,000 patents granted in the United States (Patent and Trademark Office, 1991). The percentage of Iowans that received a patent was 0.7%. In relation to its population (1.2% of the U.S. population) Iowa was below the United States average for patents issued per capita (World Almanac, 1990). Individual Iowa inventors who received patents in 1988 numbered 133, while 204 patents were assigned to organizations (although the inventor's name was on the assigned patent he/she did not own the patent, the organization did). A yearly individual patent record for Iowans from the United States patent and trademark office was as follows: year (number of patents) 75 (107), 76 (105), 77 (140), 78 (115), 79 (90), 80 (106), 81 (141), 82 (88), 83 (81), 84 (122), 85 (107), 86 (127), 87 (119), 88 (133), 89 (161), and 90 (100).

A factor that may have limited the number of patents was cost. There were expenses associated with filing, search and legal fees, plus renewal fees in a patent's life. The writer experienced associated costs at over $1000 per patent. This meant the Iowa legal system received perhaps two million dollars from fees while only $10,000 to $20,000 was spent toward eventually successful products.

A promotional corporation's literature points out the slim chances for success by stating, "despite our attempts to get some attention for your idea through these methods [marketing show, company publication, and contacts], you must remember it is an exceptionally difficult thing to do, and your chances of getting good results are extremely small," (Invention Submission Corporation, 1987). Groups may charge $5,000 to $10,000 to act as agents for inventors. One company had an annual show with a good attendance of inventors. However, the inventors at these exhibits expressed dismay (to the writer who was a visitor) about the very low attendance of manufacturers and the chances for any real leads to link-up with manufacturers.

An invention is defined in the dictionary as, "a device or useful contrivance conceived or made by original effort; to patent an invention, the skill or ingenuity needed; the use of the imagination in producing literary or artistic creation; and finally a discovery or finding" (Funk & Wagnall Co., 1963). An entrepreneur typically assumes responsibility for creating and developing new living businesses rather than burying old dead ones, and it is this quality of creativeness that is important (Martin, 1984).

According to Martin (1984), inventors or entrepreneurs are individuals with a high need for achievement and have

drive and tenacity to sustain an innovation to fruition. There are significant factors that initiate and encourage entrepreneurship. These factors involve: partial social alienation [social unacceptance], psychological or physical predisposition or a high "n-Achievement" score [determination, perseverance], demonstration effect(s) [others' experiences], precipitating event(s) [work frustration, lay-off], family, financial support [money available or shortage], and a supportive environment [professional support].

Eighteen characteristics were cited by Hornaday and Bunker in 1970 for successful entrepreneurship. These characteristics included energy, confidence, independence, accomplishment, likes work, common sense, tenacity, sensitive, need to do something worthwhile, risk taking, luck, adaptability, need for recognition, knowledgeable, self motivated, initiative, risk-taking, and enthusiastic.

An example of this entrepreneurship was observed through Thomas Edison, who was methodical, read literature, had a driving ambition, and could think spatially, visually and analogically as was noted by Jenkins (cited in Misa, 1989). Edison took inspiration from colleagues, directions (at times) from financiers, and used management skills in inventing and manufacturing activities. He understood the imperatives of manufacturing as seen in his records.

McClelland (1987) discussed measures of traits that characterized successful versus average entrepreneurs. He developed a coding system called "n-Achievement," which meant need for achievement, and where high scorers liked challenging tasks, wanted responsibility, liked quantitative feedback, and were innovative in their work. Empirical evidence supported this need to achieve as an important component in small business success.

Tests for the innate ability for ideas have been included in the Kirton Adaption-Innovation Inventory for creative style, which was significantly correlated with the Torrence's Fluency, Flexibility, and Originality test--a measure of creative level (Isaksen & Puccio, 1988). In addition, significant differences existed between extreme adaptor and innovator groups for fluency as measured with the t-test (statistical measure).

Mumford, Olsen, and James (1989) evaluated the age at which most people conceive ideas. They concluded idea conception was more likely to occur between 25 to 44 versus 45 to 64 years-of-age, when capable persons were given a supportive environment. More patents were submitted to younger rather than older inventors--when support was considered equal.

Idea Rationalization

In the idea rationalization stage there is a need to plan where the new invention can be used and developed. Here a product needs a champion who takes responsibility to get a product over many hurdles, and to make sure it does not get shot down in any stage (Brown, 1988 cited in Fernald, 1988, p. 200). Creativity and rational planning both involve a willingness to take risks and risking failure, something schools do not encourage and thus, education processes may stymie creativity (Fernald, 1988).

Idea Experimentation and Verification

Research innovation as noted by Downs and Mohr (1976) included a prescription to use studies of different inventions to understand and verify the impact of primary-attribute variation on models. They felt single-organization designs and decisions on invention designs should obtain extensive testing in adoptability. In addition, secondary attributes of innovations (compatibility, relative advantage, etc.) should be measured and considered as characteristics of adopters.

In the decision making process to go with new inventions either on a personal or organizational level there is the element of uncertainty in charting a new course. This uncertainty was reported by Tushmand and Nelson (1990, p. 6) where they noted, "the greater the

degree of technological uncertainty, the greater the learning of knowledge pressure facing the population or organization."

In approaching idea demonstration (the next stage) one reviews prior "art" at the Patent and Trademark Office in Washington, DC to find out if an invention will infringe on a patent in use. The patent office planned, by January, 1991, to provide patent information to computer users immediately after a patent issue to speed up this review process (Edelson, 1990). A computer bulletin board was another approach to streamlining patent services. Despite all forms of assistance, the record on a patent's success has been one patent in 10 pays for it's own filing costs (currently $185 for individuals, $370 for corporate, plus $280 for other costs and yearly fees of $50 to $100 (Edelson, 1990)).

Idea Demonstration

Van de Ven (1986) described new ideas, people, transactions, and the constitutional context as factors related to managing attention, turning good ideas into money, managing part-whole relationships, and leadership in institutions. He reported management of innovation that involves development and implementation of these factors to be the central concern of corporate executive officers today.

A broad scale example of mismanagement and restraint illustrates what effect this has on creativity. In the British environment with a poor manufacturing base, shortages of engineering, manufacturing and marketing expertise, and small support from the state and large firms, high-tech entrepreneurs avoided production in favor of design and consulting (Saxenian, 1988). Here entrepreneurs were constrained by government and large firms' policies. Idea demonstration by entrepreneurs was fruitless since no firm developed ideas not generated "in-house." There was a lack of idea generation despite a fivefold increase in technology funding by the Department of Trade and Industry from 1978 to 1988.

Prototype and Small-Scale Production

Beyond a product's demonstrated use, there is the successive development of models of prototypes to fit production schemes. Banfe (1984), described a successful innovation and production scheme probably with the following composition: 60% management, 20% demand, 15% product, and 5% finance. Production and success, came from creating real value in something and Banfe described entrepreneurs as individuals who saw ideas and did something about the ideas. The lack of managerial ability has caused one-half the entrepreneurial failures.

Commercial First Introduction

After meeting the challenges of forming ideas and creating models, the inventor ventured into the business arena to meet headlong with interdisciplinary thinking. Branscomb in 1986 stated, "American science is rediscovering its synergy with technology and interdisciplinary thinking and from the vantage point of intellectual opportunity, the prospects for rapid progress have never been brighter" (p. 462). Science is a creative experience in an individual and requires personal risks and freedom to make mistakes. These mistakes may occur when an inventor provides a product to the public. Branscomb (p. 463) goes on to state, "the greatest risk is the public will lose faith in its own ability to effect the beneficial applications of science for human betterment."

The fruits of early innovative ideas need to be understood from an individual, and a national perspective in order to have success for both.

> Economic success for the United States in the years ahead will depend mainly on innovative thinking, especially from scientists. New knowledge, creative solutions, and innovative products--advantages in the past--are becoming the necessities of the future. 'More so than in any other economy,' said David J. Teece. (cited by Mahoney & Littlejohn, 1989, p. 1395)

These steps toward innovative products that might start out on a small scale need to be supported if creativity and

adaptability are to play a vital role (Mahoney & Littlejohn, 1989).

Early new product movement into the market is a key to continued expansion or diffusion of products in the marketplace. "The diffusion process [in market development] has four elements: innovation, communication channels, time and the social system" (Mahajan, Muller, & Bass, 1990, p. 1). New product acceptance and the diffusion of innovations was reexamined in models to examine structural and conceptual assumptions and to estimate issues' contributions to product development.

Commercial Acceptance and Marketing

In the arena of development there is the key of market understanding and the appropriate pursuit of the customer. McClelland (1987) characterized successful entrepreneurs as persons who are pro-active and do not let things slide. They follow the achievement-motivation syndrome including seizing opportunities, breaking down tasks, looking for efficient means, asking for quality, and setting up procedures. In addition, these people are committed to others in terms of customer satisfaction.

In developing people as well as products McClelland (1987, p. 233) stated, "without motivation, people will perish [and] without achievement-motivation and certain core competencies, efforts to promote economic development

are not going to succeed." McClelland put as much credit in developing good people as developing good products.

Marketing plays a major role in product development. "Marketing can be viewed as organized rational innovation--a function concerned with identifying the opportunity for change, inducing the action required and monitoring the change once introduced," stated Simmonds (1986, p. 479). A marketer is "an evangelist and publicist" and also "a controller to channel efforts away from innovation that would not meet market needs" (Simmonds, 1986, p. 479). Marketing should be an advocate of change in an organization.

People that study marketing look at elements that can be interrelated. Seven elements or marketing "paradigms" (concepts from a focus on a fundamental attribute) include: (a) market, (b) system, (c) consumer satisfaction, (d) choice, (e) exchange, (f) conflict, and (g) influence. Probably innovation could be included as an eighth (Simmonds, 1986).

Commercial--Proliferation and Product Success

After early manufacturing has begun, the success of a product requires an understanding of the market as it changes. A diffusion process was identified for new products where an innovator--early adopter population sets the stage for the success of the product. "They [early

adopters] are the first to use the product and are instrumental in publicizing it to those who will later adopt it," stated Danko and MacLachlan, (1983, p. 39). In their empirical study, they sought to define characteristics of the early adopter of one product. Danko and MacLachlan went on to note (1983, p. 42): "It is appropriate to be consistent with the early adopter's self-image and demographic characteristics to encourage initial levels of market penetration."

An international example of marketing illustrates how competition can affect the growth (and eventual profit) of a product anywhere.

> Foreign firms aggressive pricing forces down the return on investment while building market share, and within a short period American firms retreat from the market segment and the foreign firms then move on to set aggressive prices in another segment. (p. 31) stated former secretary of defense Casper Weinberger in 1989

Therefore, producers must adapt and adopt newest technologies and make investments, or fight battles that require years to produce profits.

CHAPTER III

METHODOLOGY

The approach to this study was to design a questionnaire, validate the questions, and then select a sample population. Next, a survey was conducted via mail, the data were analyzed, and a report was written with emphasis on evaluating the process of inventing and taking inventions though manufacturing and marketing.

Designing Questions

A questionnaire survey was used because it was an appropriate means to contact 1,445 inventors. Secondly, it permitted the author to ask questions in a similar manner to all the inventors.

The questions were derived from an outline of the eight stages of development for an inventor described by Bright (cited in Martin, 1984, pp. 17-20, 41-42). In addition, questions were compiled from statements on corporate product development (Schoonhoven, Eisenhardt, & Lyman, 1990) and statements regarding entrepreneurs (Martin, 1984, p. 269) to find if there were influencing factors to support the hypothesis that only 2% of inventions reach success. Measurement of a patent's success was used to indicate, on a scale, the stage of

development a patent had reached. Furthermore, the stage of development was used to classify the progress of patented inventions and to determine the factors associated with success. Inventions were not categorized as a profit or a loss, nor by the total dollar sales volume. Responses to the stage of development were applicable to patents at all levels of income.

The first set of questions provided a rating to group inventors by their progress. From the number of inventors in each group and where these inventors were on a development scale for inventions, the second hypothesis could be accepted or rejected.

Questions 2 through 11, which identified factors for the first hypothesis, asked the inventor to identify: resources that gave the inventor assistance, factors or events that influenced the start or development of the invention, sources of money used to develop the invention, how the product was manufactured, experiences encountered with manufacturers, how the invention was marketed, amount of total sales, one word economic summary (profit, break-even, loss), concerns as an inventor, renewal of patent, and age of patent. Comparisons of the number of inventors in each stage (from question one) with their answers within questions 2 through 11 provided clues on typical factors associated for each stage.

An internal check for the validity of the responder was based on the assumption that patent holders were beyond the idea stage (to obtain a patent, they must prove that the invention is useful, which is beyond stage two the stage of idea rationalization). Yet, for confirmation, all eight of Bright's stages of development were listed. If the respondents checked stage three or higher, it should have been a positive compliment acknowledging the inventor's efforts. Another form of internal check included four questions where repeat answers (no sales or stage of development with sales; no sales or method of marketing; no sales or income; no sales or profit, loss, break-even) confirmed the validity (consistency) of the respondent.

Question 11 inquired as to when the patent was granted. The time range was divided into four periods instead of by year. The purpose was to add a security/protection for the respondent's anonymity.

Open-ended questions "other (please explain)" and "words of wisdom" were included to cover responses not listed, and to allow for additional opportunities to learn from those with experience. While writing this survey, the author considered including in the third question the response "It was needed," but for two reasons did not: (a) The author believed everyone would think her/his idea was

needed, and (b) On the list of factors by Martin (1984), "Need" was not listed as an influencing factor. Therefore, to allow for any factor not listed, "other, (please explain)" was included. The question asking for words of wisdom permitted respondents to share their thoughts and feelings not expressed in the survey questions.

Validation of a Questionnaire

The survey instrument was validated by three faculty members, and their comments and advice were appreciated. The recommended changes were incorporated as appropriate into the instrument. Authorization to use the survey instrument was then obtained from the Human Subjects Review representative, in the Graduate College of the university.

Selecting a Sample Population

Inventors contacted were from a list of 1,445 names with 1,842 patents granted in Iowa from 1975 to 1990. Inventors resided in Iowa and owned the patent at the time of application to the United States Patent and Trademark Office. Names and addresses were obtained via a computer printout and an ASCII file (on computer disk) from the Patent and Trademark Office (1991). There were 1,225 patent holders who were granted one patent during the 15-year time span and noted as single patent holders. There were 144 patent holders who were granted two patents during the 15-year time span and noted as double patent

holders. In addition, 76 patent holders were granted three or more patents during the 15-year time span and these were noted as multiple-patent holders. Multiple-patent holders were sent one survey for each patent and were asked to respond for each patent (or indicate how many patents each survey covered).

Data Collection

The survey questionnaire with cover letter (Appendix A) and prepaid return envelope(s) were mailed together to each inventor in Iowa. The initial mailing was made on November 22, 1991.

Data Entry into the Computer

The survey results were entered using a SuperCalc (Computer Associates) macro program that included two linking spreadsheets. Questions responded to by the inventor were keyed in and a macro program linked to a look-up table created a row of response data with yes = 2 and no (or no response) = 1. The macro program then copied the responses into the data file.

To catch any errors (in keying and in reading the response numbers), the survey responses were entered again by a different person. The data files were merged, compared, and corrections made. A printout in survey format was given a final check and corrections were made.

Data Analysis

Analysis of the data was by the variable, stage of development. The level of success (stage of development achieved by the inventors) was associated with responses to the questions. The hypothesis that no factors affected the stages of development of patented inventions, and the hypothesis less than 2% of inventors reach stage eight, were tested against responses.

To help visualize the relationship of stage of development to factors, histograms were created and linked to the data file using Microsoft Excel (Microsoft Corporation, 1991). Two-dimensional histograms compared stages of development to each factor. The three-dimensional histogram compared stages of development to all factors within each question. The histograms illustrated percentage of total respondents answering question one on stage of development or a comparison of factors based on a percentage of all respondents in that group or stage.

"Other" (Question 1, item 9) was not included in the histogram because it was not a stage in the developmental curve. Explanations on why 40 inventors selected "other" for stage of development is in Appendix B.

CHAPTER IV

RESULTS

Responses were evaluated from 351 of 410 surveys returned by patent holders. Of the 410 returned surveys, 43 responses were voided and not used in the analysis. Eleven inventors had died and the surviving spouse wrote a note or letter to this effect. Nine inventors had not formally assigned their patent to their employer, but in the survey, they attributed the developmental factors were controlled by their employer. Two surveys returned in the prepaid envelope noted the inventor was not at that address. Thirteen surveys were incomplete or the inventor wrote letters, while one survey had a note suggesting the survey was not applicable or irrelevant (reason was not given). Three surveys were completed from long telephone interviews, but they were removed when their surveys arrived in the mail. Four surveys were voided due to incongruities detected by internal checks.

No forwarding address accounted for the return of 43 envelopes from the initial mailing. These 43 envelopes contained 89 surveys: 26 addressed to inventors granted one patent, three to inventors with two patents, and 14 to inventors granted three or more patents.

The response rate in terms of surveys returned was 23%. This rate was much better than the patent office predicted the writer would get, based on their experiences (Meyers, 1991).

Analysis of the Data

Responses to the questions were checked for common influencing factors that occurred with significant statistical frequency. The responses were analyzed to determine the relationship between the stage of development and the items within each question. A comparison was made to resources giving assistance, the factors or events influencing the start or development of the invention process, sources of money used, how the product was manufactured, experiences with manufacturers, how the invention was marketed, total sales volume, economic description as to profit/loss, concerns as an inventor, maintaining the patent, and the age of the patent. Tables 1 through 10 presented the inventors responses to the questions. The figures are graphs that give a visual comparison of the stage of development to the percentage of the total (311) respondents, or to the percentage of the responses to all those within that stage of development.

Q1 Stage of Development

Respondents were asked to identify stages of development. Of the 367 who responded, 311 (87%)

identified the stage of development of their patent (see Table 1). Respondents who did not identify their stage of development (16), and respondents who identified "other" (40), were excluded from the analysis when factors were compared to the stages of development (Tables 2 through 10).

Forty-six percent of the respondents were in invention development stages seven and eight (commercial acceptance and commercial proliferation). Compared to the entire population (after subtracting inventors who had moved and the mailings were not forwardable, inventors who had died, and employer owned patents) this was 8%.

Over one-half (59%) of the survey respondents were in invention development stages six and seven, commercial--first sales and commercial acceptance. Two-fifths (41%) of the respondents were in stage seven, commercial acceptance. Over one-fourth (27%) of the respondents were at stage five, full-size working prototype. One inventor at stage five, prototype--full size working model, wrote "Stuck here in the middle" (see Appendix B, p. 65).

Q2 Resources Providing Assistance During Invention Development

Many inventors (156 or 50%) did not receive outside help. The most popular resources as noted by the 311 respondents were friends (76), CIRRAS (61), and

Table 1

Survey Responses as to Stage of Development of Patented Inventions in Iowa from 1975 to 1990

	Stage of Development								
Stage of Development	1	2	3	4	5	6	7	8	Other
1 Idea Stage	2								
2 Idea Rationalization		3							
3 Idea Experimentation			2						
4 Idea Demonstration, 1st prototype				18					
5 Prototype full size working					85				
6 Commercial--first sales						58			
7 Commercial acceptance							127		
8 Commercial proliferation								16	
Other									40
Total Response Number (n*):									351

Note. *n = 351, the total number of responses answering question 1. The total number of responses less the respondents who answered "other" (351 - 40) = 311.

manufacturers (44). Other resources such as IDED (14), venture capitalists (13), SBA (13), agents/consultants (11), and SCORE (11) were recognized as assisting less than 5% of the patent holders (see Table 2). Agencies that gave valuable assistance (starred items in the questionnaire) were not analyzed at this time.

Inventors within stages four and five used inventors workshops 11% and 12%, respectively, which was more than inventors in other stages (See Figure 1). CIRRAS was contacted more by inventors within stages five and eight with 25% and 38% of the responses, respectively. Patent holders who reached stage eight, commercial proliferation, did not use SCORE, IDED, or agents/consultants. From the written comments, "other" agencies included attorneys, relatives, and employees (Appendix B)

Q3 Factors or Events Influencing the Start or Development of the Invention

Many patent holders (148) responded "other" (see Table 3) to the question "What factors or events influenced the start or development of your invention?" With such a high response, the written responses were evaluated. Two descriptive words appeared frequently: "need" (98 times) and "improvement" (33 times). Written responses identifying "it was needed" and "it was an improvement over

Table 2

Survey Responses as to Resources that Assisted Patent Holders from 1975 to 1990

	Stages of Development								
Resources Contacted	1	2	3	4	5	6	7	8	Total
CIRRAS	0	0	0	2	21	13	19	6	61
SBDC	0	0	0	2	6	7	8	2	25
SBA	0	0	0	0	2	5	5	1	13
SCORE	0	0	0	0	4	4	3	0	11
Financial Institution	0	0	0	0	1	4	15	5	25
IDED	0	0	0	0	4	4	6	0	14
Inventor workshop	0	0	0	2	10	5	4	1	22
Venture Capitalist	0	0	0	1	2	4	5	1	13
Agent	0	0	0	1	4	2	4	0	11
Friends	1	1	0	5	20	17	27	5	76
Manufacturer	0	0	0	1	8	9	24	2	44
Other inventors	0	0	0	3	3	5	5	1	17
No outside help	2	3	2	6	51	20	65	7	156
Other	0	0	0	4	11	11	21	2	49

Figure 1. Combined graph for patent holders who contacted resources for assistance based on percentage response within each stage of development.

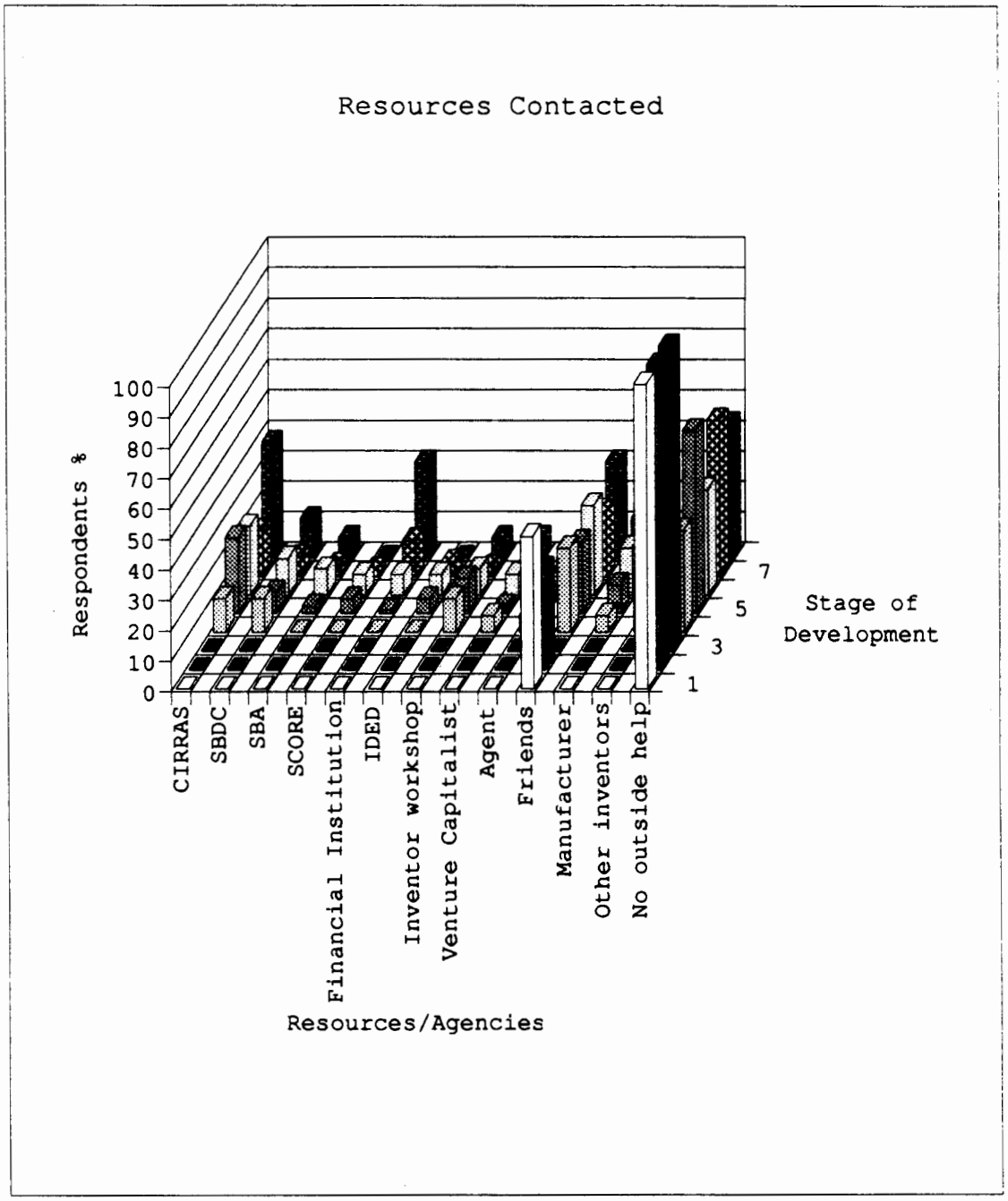


Table 3

Responses by Iowa Inventors Identifying Factors or Events Influencing the Start or Development of Patented Inventions from 1975 to 1990

	Stages of Development								
	1	2	3	4	5	6	7	8	Total
Factors Influencing the Start or Development of Inventions									
Other persons' experiences	0	0	0	3	10	11	12	2	38
Determination	2	1	1	7	36	29	58	2	136
Social unacceptance	0	1	0	0	0	0	0	1	2
Work	1	0	0	0	2	4	8	0	15
Family	0	0	0	2	3	6	11	5	27
Professional	0	0	0	2	5	3	19	1	30
Money/finances	0	1	0	2	6	6	20	2	37
No factors	0	1	0	3	13	5	4	1	27
Other	0	0	1	6	33	30	66	12	148

something that already existed" was a total of 131 responses. Compared to responses for determination and perseverance at 136, the response "need" came in second.

Q4 Sources for Money for Development

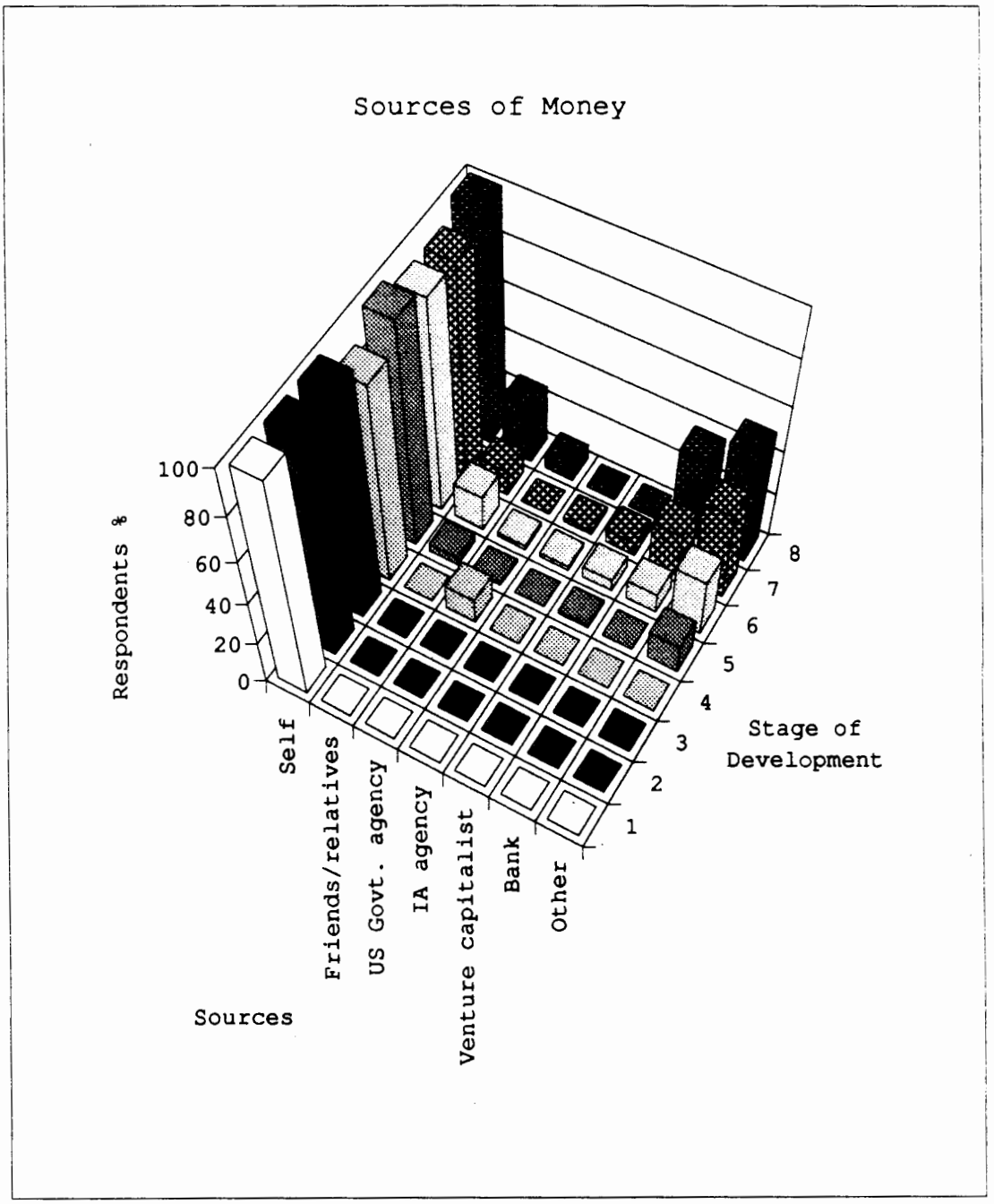
The primary source of money for development of the patent holder's invention was him/herself (295 or 95%). A total of eight (3%) received funding from government (federal and state) agencies (see Table 4 and Figure 2).

Table 4

Responses Identifying Sources of Money for Developing Iowa Patented Inventions from 1975 to 1990

	Stages of Development								
	1	2	3	4	5	6	7	8	Total
Sources for money									
Self	2	3	2	16	84	54	118	16	295
Friends/relatives	0	0	0	0	3	9	14	4	30
US Govt. agency	0	0	0	2	1	1	0	1	5
IA agency	0	0	0	0	0	1	2	0	3
Venture capitalist	0	0	0	0	1	3	7	0	11
Bank	0	0	0	0	0	5	25	6	36
Other	0	0	0	0	11	15	50	8	84

Figure 2. Combined graph for sources of money for inventor's product development based on percentage response within each stage of development.



For those in stage eight, no funding came from venture capitalists nor from any Iowa agency. For those in stage seven, no funding came from a United States government agency. For those in stage five, no funding came from a bank or lending institution or from an Iowa agency, yet the proportion of funding increased as the stages of development increased.

Q5 Manufacturer of the Patented Invention

Question five asked inventors what manufacturing assistance for patented inventions was used. The trend was for patent holders to manufacture the invention him/herself or hire a subcontractor. Over one-half of the respondents (161 or 52%) indicated they had manufactured the invention him/herself. Other manufacturing assistance used by the respondents were: hired a subcontractor (85), sold/royalty (37) and other (60). Only five inventors hired an agent and those were primarily in stage seven (see Table 5 and Figure 3).

Q6 Experiences Encountered with Manufacturers

Survey responses as to experiences encountered by the inventors when visiting with the manufacturer included "were interested" (166) and "enthusiastic and produced" (107). These responses were noted especially within stage eight (75%) (see Table 6).

Table 5

Survey Responses as to Manufacturing Assistance for Patented Inventions

	Stages of Development								
Manufacturing Questions from	1	2	3	4	5	6	7	8	Total
Manufacturing:									
Hired a subcontractor	1	0	0	0	11	15	50	8	85
Sold/royalty	1	0	0	0	3	9	20	4	37
Manufacturered it yourself	0	1	0	4	30	35	82	9	161
Not manufactured yet	0	2	2	14	30	9	0	0	57
Hired an agent	0	0	0	0	1	0	4	0	5
Other	0	0	0	1	17	11	26	5	60

Responses given by inventors in stage six were: manufacturers were interested (34); some were positive, but not productive (21); some did not have time (13); and some said they could manufacture the product, but actually could not (11). Inventors working at stage five found manufacturers interested (49), positive but not productive (30), or other (26). Time did not appear to be a factor encountered by those in stage eight.

Figure 3. Manufacturing routes followed by Iowa inventors expressed as a percentage of the 311 total responses.

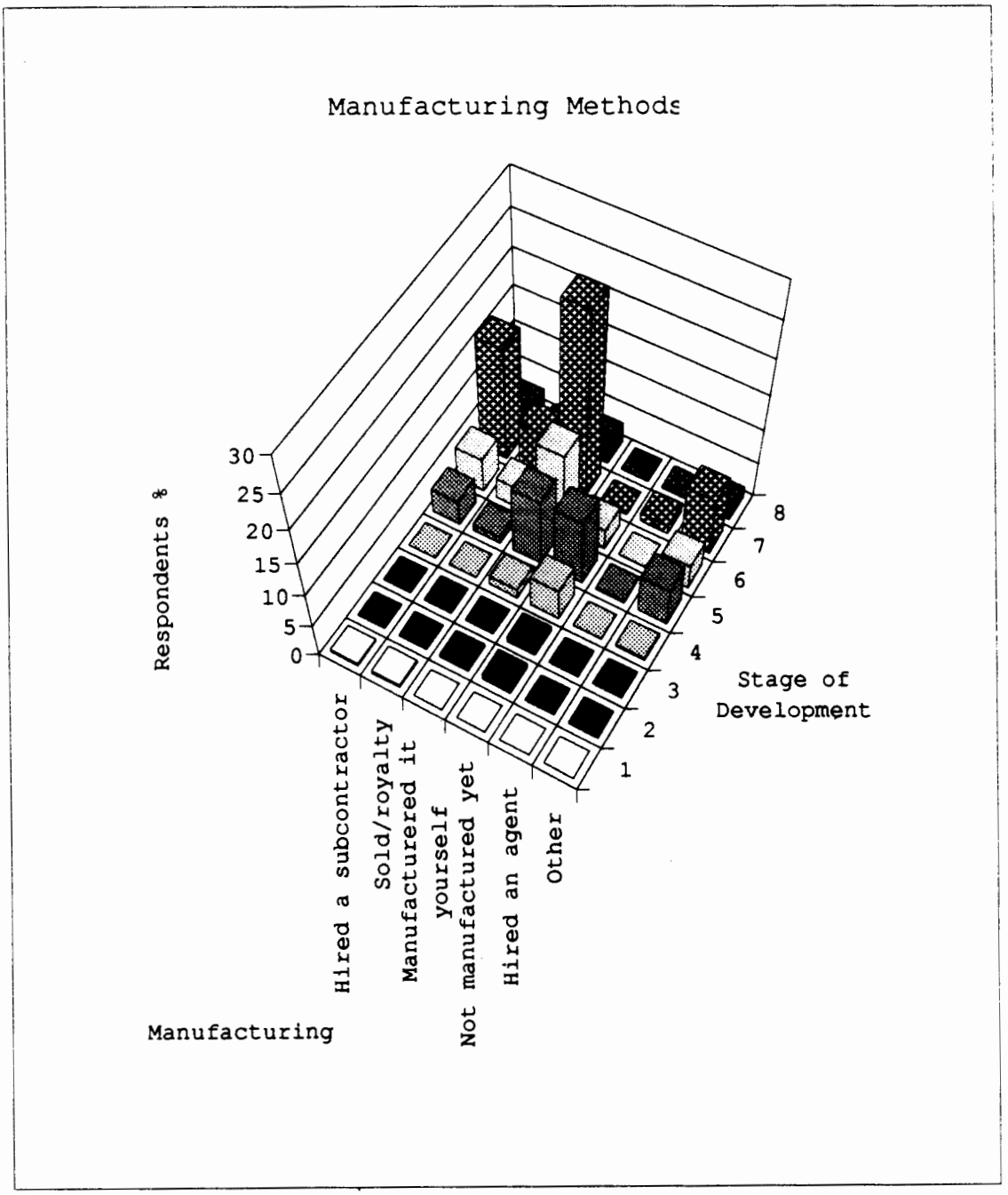


Table 6

Survey Responses as to Experiences Encountered with Manufacturers

	Stages of Development								
	1	2	3	4	5	6	7	8	Total
Experiences encountered with Manufacturers									
Enthusiastic and produced	2	0	0	0	14	19	60	12	107
Not visit with me	0	1	0	3	8	5	8	2	27
No time	0	1	0	4	18	13	18	2	56
Yes but no	0	1	0	4	30	21	22	3	81
Too small volume	0	1	0	2	5	6	12	2	28
Too large volume	0	1	0	0	4	6	6	4	21
Interested	1	0	0	6	49	34	64	12	166
Referred to others	0	1	0	0	12	6	18	8	45
Said could but couldn't	0	1	0	0	19	11	11	0	42
$ changed	1	0	0	2	1	6	12	6	28
Time table not met	0	1	0	2	12	7	15	0	37
Other	0	0	2	4	26	16	26	1	75

Inventors were referred to other manufacturers (45), manufacturers stated the project was too large (21), and other manufacturers indicated the project was too small (28). Manufacturers would not visit with 27 of the inventor respondents. One respondent wrote the manufacturer "mentioned stealing the invention" (see Appendix B, volume 2, page 85).

Q7 Marketing Efforts by the Patent Holder

According to the survey responses in Q7 on marketing efforts (see Table 7), 119 of the inventors marketed the invention him/herself at trade-shows. Five inventors in stages six and seven sold their patents to marketers. None of the respondents in stage eight sold their patent to a marketer (see Figure 4).

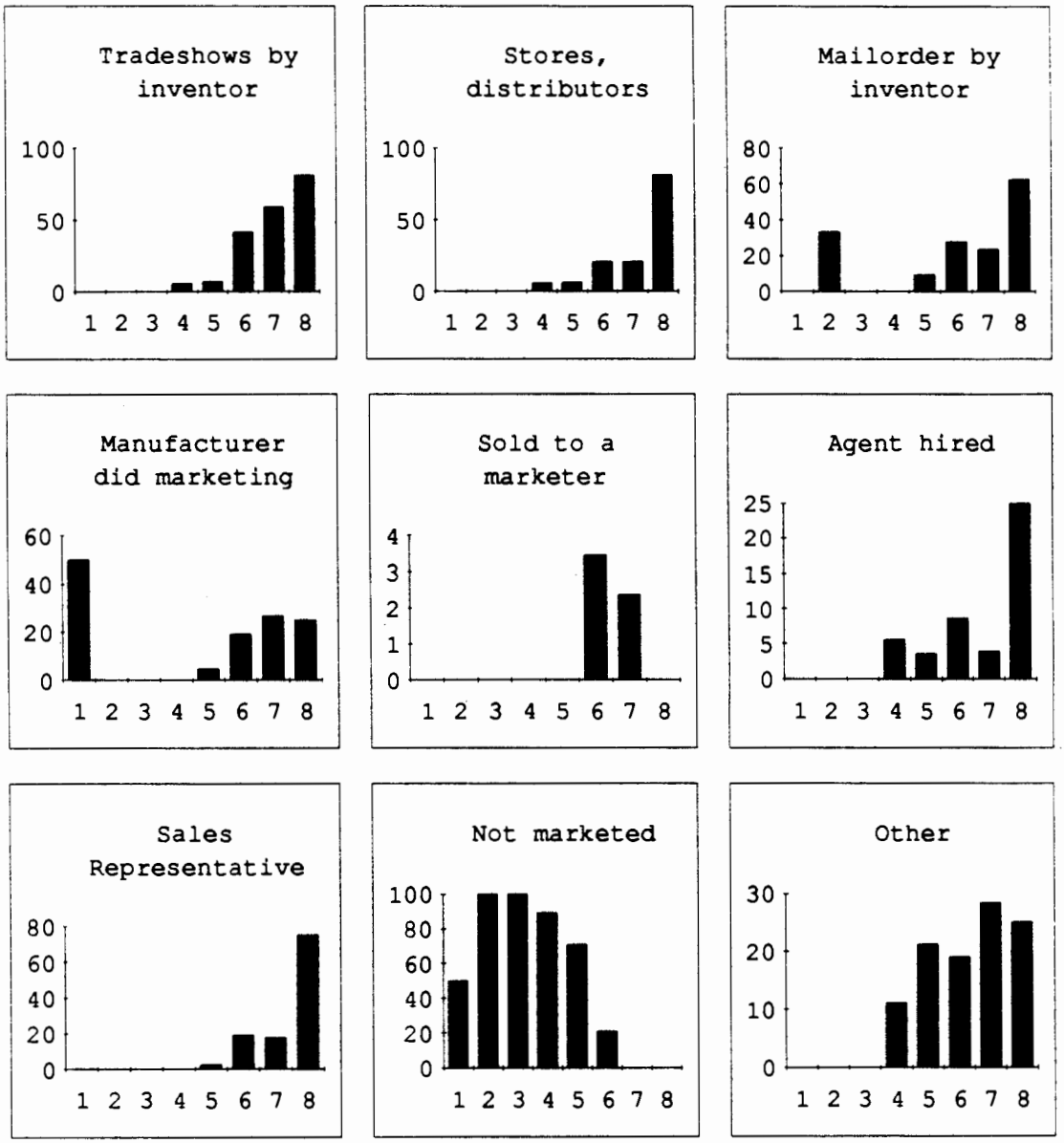
Inventors within stage eight, sold their invention though trade shows (13 or 81%), stores (13 or 81%), sales representatives (12 or 75%), and mail-order (10 or 63%). For those within stage seven, the manufacturer did the marketing (34 or 27%), the inventors sold by mail-order (30 or 24%), through stores (26 or 21%), by sales representatives (22 or 17%), and at trade-shows (75 or 59%).

Table 7

Survey Responses as to Marketing Efforts by the Patent Holder

	Stages of Development								
Marketing Questions	1	2	3	4	5	6	7	8	Total
Marketing Efforts									
Tradeshows by inventor	0	0	0	1	6	24	75	13	119
Stores, distributors	0	0	0	1	5	12	26	13	57
Mailorder by inventor	0	1	0	0	8	16	30	10	65
Manufacturer did marketing	1	0	0	0	4	11	34	4	54
Sold to a marketer	0	0	0	0	0	2	3	0	5
Agent hired	0	0	0	1	3	5	5	4	18
Sales Representative	0	0	0	0	2	11	22	12	47
Not marketed	1	3	2	16	60	12	0	0	94
Other	0	0	0	2	18	11	36	4	71

Figure 4. Marketing efforts utilized by Iowa inventors to develop and sell their patented inventions based on percentage response within each stage of development.



Q8 Total Sales to Date

The responses for total sales (see Table 8) followed a trend with the majority (63%) within stage eight giving responses of "over $500,000" (see Figure 5). Close to half (46%) at stage seven responded with total sales between "$50,000-$499,999." Those at stage six, commercial first introduction or market entry, covered the full range of dollar sales: "no sales" (16), "$0-$499" (3), "$500-4,999" (15), "$5,000-50,000" (16), "$50,000-$49,999" (4), and "over $500,000" (4).

Q9 Profit/loss Economic Definition

Forty-five percent of 139 inventors indicated they had profitable inventions. Slightly more (155 inventors) responded they were at break-even, loss, no sales, or don't know (see Table 8).

Q10 Concerns as an Inventor About His/Her Invention

A concern of 126 inventors was their invention being copied (see Table 9). The concern of 115 inventors was the lack of marketing. For 114 inventors, there was a concern about pioneering the market. Undercapitalization was a problem indicated by 63 respondents. The least concern was fulfilling orders (13).

Inventors in stage eight had concerns about pioneering the market (69%) and copying (56%). But, inventors in

Table 8

Survey Responses as to the Status of Sales of Patented Inventions

	Stages of Development								
	1	2	3	4	5	6	7	8	Total
Total Sales									
no sales	1	3	0	16	56	16	1	0	93
$0 - $499	0	0	1	0	7	3	2	0	13
$500 - $4,999	0	0	0	1	11	15	1	0	28
$5,000 - $50,000	0	0	0	0	2	16	21	0	39
$50,000 - $499,999	1	0	0	0	1	4	59	6	71
Over $500,000	0	0	0	0	1	4	41	10	56
Economically									
Profit	1	0	0	0	2	11	113	12	139
Loss	0	0	1	6	26	22	3	0	58
Break even	0	0	0	0	6	11	8	4	29
No sales	1	2	0	6	31	10	0	0	50
Don't know	0	1	1	2	8	5	1	0	18

Figure 5. Sales volume by Iowa inventors on their inventions were related to stage of development and each group was based on percentage response within each stage of development.

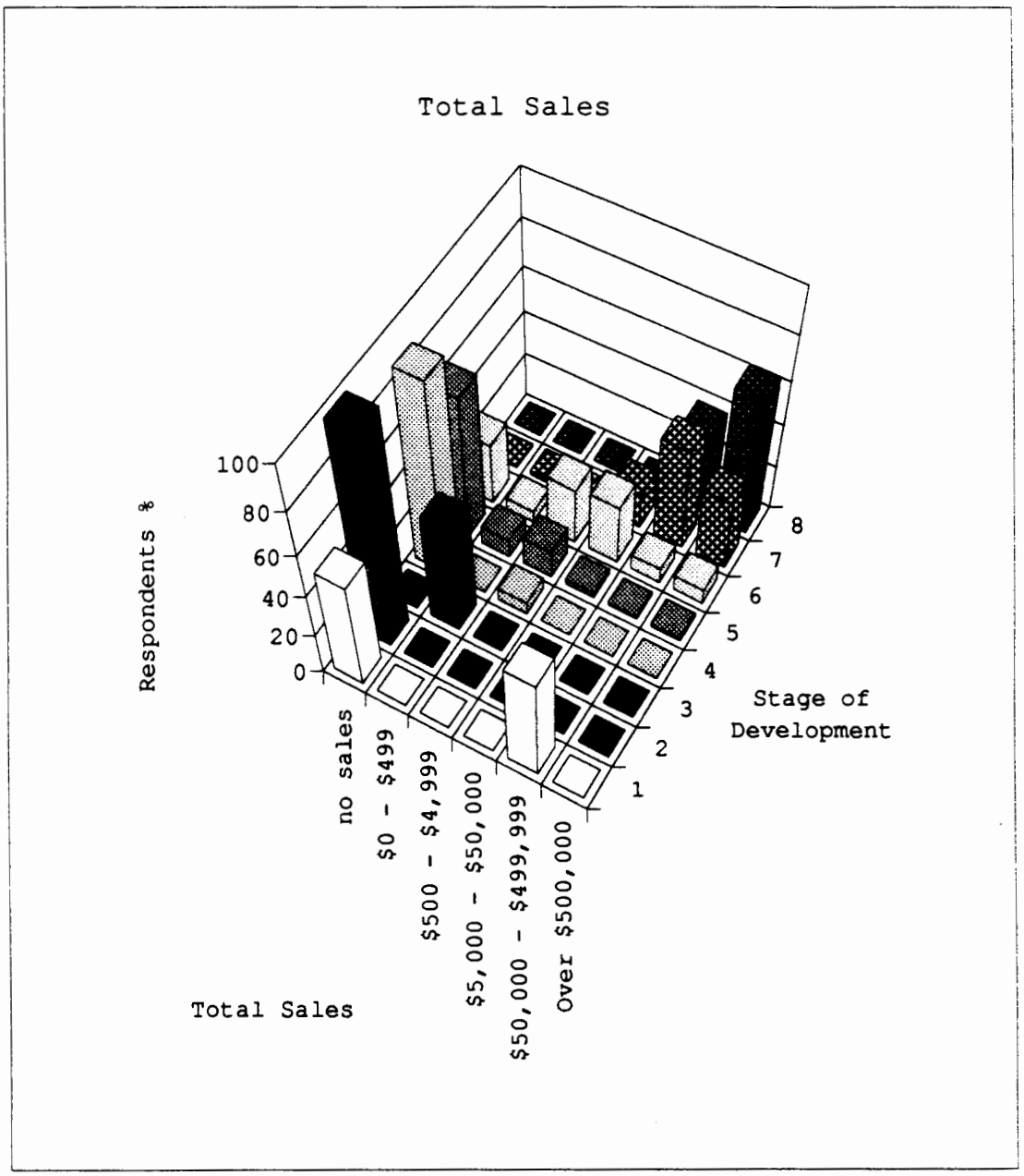


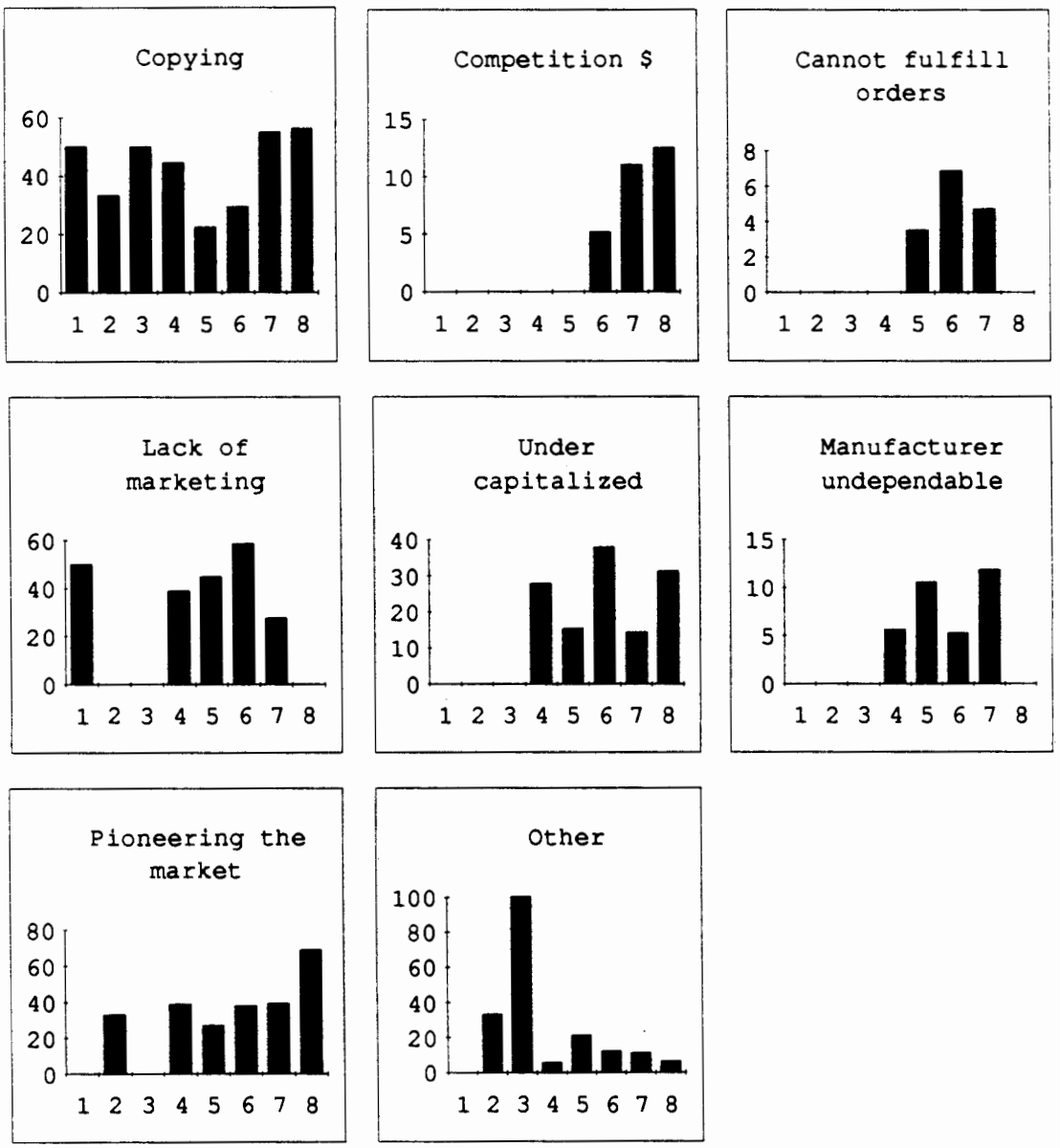
Table 9

Survey Responses as to Inventors Concerns Regarding the Development of Their Patent

	Stages of Development								
Questions from Survey	1	2	3	4	5	6	7	8	Total
Inventors concerns									
Copying	1	1	1	8	19	17	70	9	126
Competition $	0	0	0	0	0	3	14	2	19
Cannot fulfill orders	0	0	0	0	3	4	6	0	13
Lack of marketing	1	0	0	7	38	34	35	0	115
Under capitalized	0	0	0	5	13	22	18	5	63
Manufacturer not dependable	0	0	0	1	9	3	15	0	28
Pioneering the market	0	1	0	7	23	22	50	11	114
Other	0	1	2	1	18	7	14	1	44

stage eight did not appear to be concerned about marketing. Thus, the successful persons had the least concern for lack of marketing as they had already achieved it (see Figure 6).

Figure 6. Inventor concerns for patented inventions and development with each factor based on percentage response within each stage of development.



Q11 The Year Patents were Granted and Patent Renewal

Patents granted from 1987 to 1990 (see Table 10) appeared to be greater in stage six when compared to stages five and seven in prior years. Does this show a change in the process between 1987 and 1990, or will some inventors answering stage six now answer "other" in another 3-years?

Table 10

Survey Responses as to Patent Renewal and Age of Patent

	Stages of Development								
Patent Renewal Questions	1	2	3	4	5	6	7	8	Total
Patent renewed?									
3 year renewed	0	1	0	5	17	15	51	5	94
7 year renewed	1	0	0	2	4	5	7	2	21
11 year renewed	0	0	0	0	0	1	1	0	2
Granted 1975-1978	1	0	0	0	15	11	25	4	56
Granted 1979-1982	0	0	1	2	10	6	35	1	55
Granted 1983-1986	1	1	0	7	24	9	32	3	77
Granted 1987-1990	0	0	0	6	20	22	43	2	93

Patent renewal is somewhat new and renewal was in effect for patent holders who were granted patents after December 12, 1980. For 98 respondents who renewed the patent at 3-years, 17 received patents between 1975-1978, 21 received patents between 1979-1982, 29 received patents between 1983-1986, and 25 received patents between 1987-1990. For the 7-year renewal, 9 received patents between 1979-1982, 10 received patents between 1983-1986, and for the 11-year patent renewal one received a patent between 1979-1982.

CHAPTER V

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purposes of this study were (a) to survey Iowa inventors to identify factors that affected the success of inventions, and (b) to test two hypotheses. The first hypothesis was that there were no factors that affected the stages of development of patented inventions. The second hypothesis was that less than 2% of inventions patented in Iowa became a success (commercial acceptance and commercial proliferation).

Discussion

To answer the hypothesis, 46% of the respondents indicated they had reached stages seven and eight (commercial acceptance and commercial proliferation) the assumed definition for success. For the entire population, this was calculated to 8%. The highest number of responses were from inventors in stage seven (commercial acceptance). Inventors in state five of development provided the second highest number of responses. Responses from inventors in stage five (especially written comments) indicated they may need help to give their product a boost. Typical responses of inventors in stage five were:

Dead-end due to the lack of marketing knowledge.

Dead product. I didn't know how to market. Too many people copied our idea.

I had a prototype of the [product] but I have put it on hold until I can get someone else interested in financing and testing.

Developed, patented, used, but not commercially produced.

For outside assistance, many respondents indicated they received no outside help. A few respondents identified some agencies as "waste of time." A few agencies were identified as helpful (see Appendix B). Other resources were identified as attorneys, partners, or relatives.

Ninety-eight respondents expressed "need" and 33 expressed "improvement" as factors that influenced their start or development of an invention. There appeared to be a relationship of these "other" factors with stage of development.

Inventors' sources of money (Table 4) indicated that 95% of the money invested was their own. Sixty three respondents indicated they were undercapitalized (Table 9), and 295 respondents paid for product development themselves. Undercapitalization was also a concern as well as a detrimental factor. Does this indicate if inventors

have insufficient funding will the chance of success be lessened? This would be an interesting follow-up question.

Product manufacturing responses covered in question five indicated a trend for inventors to manufacture the invention themselves or to have a subcontractor manufacture their invention. Inventors in stage five either had to manufacture the invention themselves or else it was not yet manufactured. There appears to be a need to assist inventors in manufacturing their product by themselves, and/or assist inventors in locating a compatible subcontractor.

Forty-five percent of the inventors within stage five and 59% in stage six had major concerns for a lack of marketing (Table 9). Inventors in these stages were less concerned about copying than inventors in stages 1, 2, 3, 4, 7, and 8. Are inventors in stages five and six overconfident?

Meeting a timetable did not appear to be a factor to those inventors at stage eight. Perhaps stage eight inventors were devoted full time to their patented product and had control over manufacturing and marketing to affect success. Inventors in stages four to six may be working full-time on an unrelated job and could not direct full attention to a timetable. One inventor wrote "My only problem is as a farmer I don't have time to do everything.

I also farm [many] acres, farrow to finish [many] hogs plus feed out [many] cattle."

Price fluctuation by the manufacturer affected 38% of the inventors in stage eight. Perhaps fluctuations were due to unforeseen problems, typical changes in the economy (i.e. cost of materials), or when a product had market proliferation, the manufacturer or supplier charged more. The last case could be a captive customer scenario.

Trade-shows were the most selected option by inventors in stages six, seven, and eight. Sales or licensing to a manufacturer was a rare approach. Five patent holders indicated they had sold to a marketer and five responses represented 1%. If a measure of success was equated with selling to a manufacturer, then the hypothesis for the percentage of successful inventions is true. Perhaps this was where the comment originated from when Ziegler [1991] and others stated that 1 to 2% of inventions become a success. Inventors paid groups like invention corporations to promote/sell their idea to manufacturers. Although invention corporation sets up a display for their inventor clients at trade-shows, the display promotes the invention corporation and will sell the inventor's ideas for a commission, but it does not sell products. This survey indicated the chance of selling an idea to a marketer is small.

Responses for total sales followed a trend with most responses of inventors in stage eight at "over $500,000," stage seven at "$50,000-$499,999," and stages 1 to 5 at "no sales." Patented inventions especially made a profit for inventors in stages seven and eight.

The request for "words of wisdom" elicited responses from 257 inventors. Their comments are abstracted into Appendix C, for the purpose of supporting other inventors. Identifiers such as names, addresses, phone numbers, etc. have been either removed or substituted with a "*."

Conclusions

Responses from 311 Iowa inventors indicated 41% were in stage seven (commercial acceptance) with their patented inventions and 5% had gone beyond to stage eight (commercial proliferation). If success was defined as inventors reaching "stages seven or eight," a level of 46% (based on the responses received) or a level of 8% (based on the entire population) at these two stages appears to be evidence so to reject the second hypothesis that only 1 to 2% of inventors have patented inventions that become a success.

Another conclusion was that successful, patented inventions were marketed and manufactured by the inventor him/herself. With this factor and the following factors, it appears that the first hypothesis, there were no factors

affecting the stages of development of patented inventions, can be rejected. The factor that an inventor marketed a patented invention at trade shows was associated with success. Successful, patented inventions also produced a total income of over $500,000. Other factors related to success were when: (a) paid a commission to an independent agent, (b) marketed the patented invention to stores, (c) hired a subcontractor to manufacture the invention, (d) manufactured the patented invention, (e) marketed the patented invention via mail-order, and (f) received financing from a financial institution (bank).

Other factors adversely affected development of successful, patented inventions. Inventions that failed were associated with: a lack of marketing, a manufacturer who was positive but not productive, undercapitalization, and manufacturers who said they could manufacture the invention but could not.

Factors that were common to all successful inventors were a source of money and an influencing event. A majority of inventors in all stages of development stated the predominant source of money was their own (295). Over one-third of the inventors responded that determination and perseverance influenced the start or development of the invention (136).

Recommendations

Since Iowa has a low rate of inventions per capita (0.7%) compared to the national average (1.2%), it is recommended that the State of Iowa support inventors where factors associated to success are indicated. The State of Iowa can assist by: (a) locating an enthusiastic and productive manufacturer, (b) helping to set up and run manufacturing, and (c) by supporting marketing the invention via trade-shows, independent agents, mail-order, and directly to stores.

Economic development relies on ideas, capital, and management to develop jobs that in turn aid in the manufacture of new or existing products. Helping inventors to reach manufacturing and marketing stages will lead to the employment of more people and this in turn will aid Iowa's economic development.

While analyzing the results from this study, some questions were generated that warranted further study. Inventors in stages five and six were less concerned about their invention being copied than inventors in the other stages. Further study would determine if inventors in stages five and six were less cautious or overconfident than inventors in other stages. An evaluation should be made to determine if insufficient funding (because the money inventors invested was their own and because

inventors indicated they were undercapitalized) lessens the chance of success. An evaluation also could be made of the proportions of inventors in stage six versus the time lag since their patents. For example there appeared to be a profusion of inventors in stage six with patents granted from 1987 to 1990, as compared to inventors granted patents in other time periods. Will this pattern repeat itself in 3-years? In 3-years, how will the inventors (in this study) progress with their invention. Will their answers remain stage six, or change to stage seven, eight, or "other"? Finally work is needed to compare Iowa with other states as to typical responses of inventors. Are the responses from this survey typical for inventors in states with a higher or a lower percentage per capita of inventors?

It is also recommended to investigate if inventors could be stimulated by organizations encouraging inventions. These organizations would lend support to inventors thinking of going into manufacturing and marketing. Inventors may appreciate hearing success stories. Inventors in stages three to five especially appear to need encouragement and direction. Individuals in stages three to five (105 out of 311 responses or 34%) have made the first step toward development. If these inventors can be encouraged to keep going and receive appropriate

outside help (especially manufacturing and marketing) they can devote more time to solving problems and developing ideas to fill needs. The words of wisdom of several successful patent holders were "Do it/Go for it," when referring to people who have an idea for which a patent might be obtained.

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APPENDIX

APPENDIX A

Questionnaire and Cover Letter

Factors Affecting the Development of Patented Inventions

Where do you place your invention in the developmental process? Please circle the phrase that best describes your present position on your patent/invention.

1. Idea stage
2. Idea rationalization (does it have merit?)
3. Idea experimentation
4. Idea demonstration (beginning prototypes)
5. Prototype (full size working model, testing)
6. Commercial - first introduction, market entry
7. Commercial acceptance (reorders, widespread sales)
8. Commercial proliferation (invention is adapted for use in other markets)
9. Other
   (explain):

_____Q2

Circle (O) all resources that gave assistance during the development of your invention. Place a star (*) on those you found especially valuable:

CIRRAS (Iowa Center for Industrial Research and Service) 10	SBDC (Small Business Development Center) 11	SBA (Small Business Administration) 12
SCORE (Service Corp of Retired Executives) 13	Financial institution (bank) 14	Iowa Department of Economic Development 15
Inventor's workshops 16	Venture capitalists 17	Agent or consultant 18
Friends 19	Manufacturer 20	Other inventors
No outside help 22	Other: **(explain)** 23	

Q3

What factors or events influenced the start or development of your invention? Circle (O) those that apply, star (*) the one that gave you a push to pursue your idea.

Other persons' experiences (parents, mentor, incubator) 24	Determination, perseverance 25
Social unacceptance (minority, immigrant, transplant, other) 26	Work: Job frustration, lay-off, dismissal 27
Family support or freedom (single, widowed, divorced, married) 28	Professional support: accounting, legal, advisor, education 29
Money/finances 30	No factors or events were precipitators 31
Other: (explain) 32	

Q4

What sources of money were used to develop your invention: (circle those that apply)

Self (your pocket) 33	Friends, relatives 34	US Govt. agency 35
Iowa agency 36	Venture capitalist 37	Bank/lending institution 38
Other: (explain) 39		

Q5

How was your product manufactured? (circle those that apply)

Hired a subcontractor 40	Sold (royalty) to manufacturer 41	Manufactured it yourself 42
It is not manufactured yet 43	Hired an agent 44	Other: (explain) 45

Q6

Did you encounter these experiences with manufacturers? Please answer "yes" or "no".

____ 46 Was enthusiastic and produced it	____ 47 Did not want to visit with me
____ 48 Did not want to invest the time	____ 49 Was positive, but not productive
____ 50 Was too large for a small volume	____ 51 Was too small for a large volume
____ 52 Showed interest in my invention	____ 53 Referred me to other manufacturers
____ 54 Said they could, but could not	____ 55 Changed pricing
____ 56 Did not hold to time table	Other: (explain) 57

Q7

How did you market your invention? (circle those that apply)

Marketed it yourself at trade-shows 58	Marketed it yourself to stores, chains, distributors 59	Marketed it yourself via mail-order 60
Manufacturer did the marketing 61	Sold to a marketer 62	Hired an agent 63
Paid commission to an independent sales representative	It is not marketed yet 65	Other: (explain) 66

Q8

To date, what have been your total sales? (circle)

no sales 67	$0 - $499 68	$500 - $4,999
$5,000 - $50,000 70	$50,000 - $499,999 71	Over $500,000 72

Q9

In economic terms, which item best describes your patented invention? (circle one)

Profit[73] Loss[74] Break-even[75] No sales[76] Don't know[77]

Q10

What are your concerns as an inventor (about your invention)?

Copying by others [78]	Underpricing by competition [79]	Cannot fulfill orders [80]
Lack of marketing [81]	Under capitalized [82]	Manufacturer not reliable/-dependable [83]
Pioneering the market (i.e. educate people how to use it) [84]	Other: (explain) [85]	

Q11

When did you renew your patent? (circle the appropriate answer)

3.5 years first[86] 7.5 years second[87] 11.5 years third[88]

When was your patent granted?

1975-1978[89] 1979-1982[90] 1983-1986[91] 1987-1990[92]

Q12

Do you have any words of wisdom? What would you: a) do again? b) not do again? c) do differently? and d) help you could use?

For additonal space, you may write on the back of these survey pages, or on another sheet of paper.

Your name came to my attention as one who has lived in Iowa, and has been granted a patent within the last 17 years. I am working on a graduate degree in Industrial Technology at the University of Northern Iowa and am researching factors which impact development of inventions. Perhaps you can share your views with someone who has applied for and hopes to soon have a first patent.

A few questions (of many I wish I could ask) are included in a brief survey. Would you be so kind as to complete and quickly return it? The intention of my study is to document the process of invention development and influencing factors. The results of this survey will be shared with those who participate. Please indicate below if you would like to have the conclusions sent to you. I will be pleased to do so.

Sincerely,

Diane D. Schou

Diane D. Schou, Graduate Student
Dept. of Industrial Technology
University of Northern Iowa
Dr. Rex Pershing, Advisor

Enclosure

If you would like to have the conclusions of this survey sent to you, please enter your correct address on the below lines, and send this along with the survey.

_____

_____

_____

_____

APPENDIX B

Inventors Comments to Questions 1-11 and to Open Ended Questions "Other (please explain)"

The written responses/comments were grouped below with ";" separating different inventors responses. Names, inventions, and any identifying comments were replaced with "*". Identical/repeated comments have been deleted. The numbers differentiate the items within each question.

Question 1: Where do you place your invention in the developmental process?

4 Haven't proceeded beyond here.

5 Full scale plant, done; Stuck here in the middle. Promised soon by manufacturer.

6 Almost licensed; I have had reorders, but not widespread sales; Soon.

7 Personal use in own business; * for the * business. Units in stock--limited sales developed across United States. Could be world wide market with marketing help.

9 Marketing was unsuccessful pursuing the invention was discontinued; Got patent--never marketed; Dead end due to the lack of marketing knowledge; No marketing; Could not

find market; Never put on market; No further market was established so sales of this product have ceased at this time; After manufacturing the *, we sold out patents and manufacturing capability due to inability to market. Buyer is now essentially out of business; I can't seem to sell my patent to anyone; Has been patented--trying to determine market; Have full size working model but was unable to market my idea; Dead product. I didn't know how to market. Too many people copied our idea; Another patent has difficulty with market acceptance due to poor acceptance of all prior art.

Project discontinued. Interested marketer was spending $10,000 refining its development decided market wasn't sufficient to justify putting it on the market; Change of * made it useless; Dropped for lack of interest; Patent has expired and market is ?; Full size working model but am not manufacturing now; Abandoned; Have decided to forget it; Bombed out!; One patent became obsolete in a few years due to economy and new technology, plus it was expensive.

Sold about 50 units. They work very well. Cost of manufacturing too high. Lot of competition. Lack of funds to pursue. Re-modeling unit to correct details and costs; Am now working with engineer and a * unsolicited proposal. Prototype is almost done; I had a prototype of the * but

have put it on hold until I can get someone else interested in financing and testing; I haven't pushed this much lately. Consulting engineers never asked much for me doing it. It works great, but they won't *. Frankly I'd say jealousy plays a part; I got a patent on a * that I never built; Developed, patented, used, but not commercially produced; Discontinued production when I went back to get my M.A.

I improved a marketed product; Manufacturer interest.

Do you know if anyone is interested?; Patent granted wish to license rights;

Use only by inventor in own operations.

I have a number of patents that were sold throughout the USA and produced in other countries by direct selling methods including Private Label Brands, licensing after proven; On market since *; Marketed the product myself. Advertised in several * magazines; Starting another product to add to our production; Patent issued and sold to overseas firm; Have * patents in different stages of marketing; I sold a few which I made myself.

Question 2: Circle all resources that gave assistance during the development of your invention.

10 Marketing only; Discouraged development; All of the above is a waist [sic] of time. Political bull!; No

positive help at all!; CIRRAS did not help, in fact they hindered. Told me my machine was unpatentable. I suspect that there might have been some politics between the state and the people in CIRRAS.

11 Nebraska!; Drake.

12 The SBA only backs a bank loan. If you don't have collateral, it is not likely you will get the loan.

13 All of the above is a waist of time. Political bull!; the biggest waste of time.; I went to SCORE's yearly seminars. You can learn a lot.

16 All of the above is a waist [sic] of time. Political bull!

19 Some.

20 Illinois.

22 As far as the concept and design was concerned.

23 Electronic engineers; Relatives, furnished some capital; Money from Grandmother; #1 God, wife; Family; My own company; Co-inventors; Myself and son; Three machine shops; Dealers input; US Patent Office; Business associates; My brother; * and fellow employees; A relative built the prototype model; Accountant--put together small group of inventors; Employees; Minnesota Inventors Congress.

* magazine printed an article on it; * trials to prove suitability for * uses; I used the library for how to file

for patent; Necessity is the mother invention; Education and experience in the * field; Engineer--out of state; Established manufacturing and marketing companies, marketing like products.

The people at Drake had (have?) a program to help inventors. Their opinion was that there is little demand for a * in the marketplace; Dept. of Energy gave me a grant to use my * to * for the purpose of saving energy; Of all the alleged organizations that are supposed to help, I found they helped very few. Mostly all form and no billiards. Going through the motions, keeping their jobs, but not really helping more than one or two inventors. Please advise me if I am wrong; A service ISU had at that time to assist inventors in finding Iowa manufacturers to manufacture their product. I can't recall the name of the ISU group or office; Received grant from DNR * Foundation; Iowa agencies were absolutely no help!; I consulted CIRRAS and other agencies associated with ISU and didn't get any real help; Quite frankly the government institutions are a joke; Note: CIRRAS, SBDC, and SCORE were more than happy to talk to me but when it came to actually getting anything done they were no help at all; ISU; Many people help with ideas, pro and con. If you don't try to hide your idea "under a bushel," once you establish "prior rights"; Iowa

State University Department of Engineering--Patent Department also.

Encouragement from patent attorney in *; I have a patent atty. who is a friend of the family; My lawyer; Local--Attorney search and filing; Washington, DC patent attorney; Just a patent attorney in *; An attorney which had some experience helped with getting it patented; Patent lawyer.

Question 3: What factors or events influenced the start or development of your invention?

24 Observed need.

29 This held me up because of bad advice from a bogus patent agent.

31 My Father was a big influence in deciding to get a patent. The tool itself was designed and built because I needed it in my work.

31 I thought it was a good idea, which I use in my * operation, and thought it could be a good marketing and money making invention.

32 Computer developed from experience with doing * as a *. Could find no * could *. So, tried to find out why and through a lot of money and time came up with a *.

Personal experience from driving *--2 people included.

Need; Needed; Need to develop propriety products for a new business; I needed a particular item that no one made. So I made one myself for my own use. After some people heard about it, they started sending me money; Needed better * for own use at first. Then decided to patent; Need for a better piece of equipment to do the job; Felt a need at that time (*) for need of such a tool; In my job I saw a need and came up with a idea to solve it, current employer was not in a position to develop and market it; I saw a need and built my ideas from that; The need for this type of product in *. None was available that was simple and practical; A need for a change or new idea to support the future; * can't keep track of *. Often they *; Recognize need; Knowledge of a problem and the solution; Commercial need; Necessity; I had a problem to solve. Necessity is the mother of invention, God given desire and the need for the process; 1. Observation of need by potential customers. 2. Void in market areas for our company as well as major competitors; Need: this patent was added to * #1 "with *"; Need for product; Recognition of need in own operation; Job need; Need for such a *; A necessity of an easy way to get a job done; Necessity; Personal experience indicated a need for a product to perform the same task in a safer manner; For my own use to keep *, etc. off. * protected the * from *; Need. My

[son/daughter] left for college and I needed * that would *; Saw need for the product. None available so developed it; I saw a need for such a machine in the industry; Needed in *; Necessity, invented for our use first, then on to public; I knew there was a need; Need for improvement; Saw a need. Built a prototype; Need for the products; I felt there was a need and searched the market for a suitable alternative and found none!; A need * not available; A needed piece of equipment for my business; I found a need for my invention in my * operation; Need in * field; Presumed need for product; A new law to * by [year] 2,000--required that all *; Needed one; Need for product to preform function and dealer who wanted to handle it; Developed as a result of commercial need for *, It was needed for the project I was working on; Saw the need for a product and developed procedure to prototype ideas; Necessity--as * were needed to * on a *; The need for an item which would * without manipulating the * and * remains * throughout the process; Need to solve a problem; I could see that the need for this product existed; Necessity, or need for the invention (personal need for it); To prevent * of *; I had a problem in my business which need solving; I solved it; A needed product for efficiency; A need for this type of product on the industry; Saw a need for this type of * to fill a niche in * system; Article in Des Moines

Register stating need for development of better * and * for *; Problem needed solved; A need for my * work; * an * for a small * out of necessity; Just thought of a need; * need for the device; none on the market; A * needed in my business; Industry need; At the time there was a need for this; Recognized need; A need for the equipment; The need for invention was job oriented; The need for some better method of sending * to a * than a *!; A need to be able to * without * to them, so we could reuse them. Also a safe way to *. Why be wasteful?.

Attempted to improve on two previous, similar items on which patents had expired; Found a way to speed up a process, easier, faster, cheaper and better; After buying a new *, my arm became very sore after *. This gave me the incentive for a better device; Supply source became uncertain so changed design for better manufacturing ease and improvement; It's an improvement and simplification of design and function of an existing instrument; My employer was looking for ways to reduce expenses. They could get raw material for 1/6 the cost of factory made products. Therefore, they were looking for some way to process it; I am a * at the *. One of my * was *. I later learned that it was common practice to *. I consulted one of the * who told me that he/she would use my invention if it was better and simpler than the *. My * is presently in use at * in

IA; Desire for greater efficiency; I knew there was a better way; The demand for a better product; To make my own * easier; Aggravation with existing product; Requirement by employer's customers for an improved means of accomplishing special tasks; Was a director of *, adjusted * physically during * projects--thought "MUST be a better way." Came up with "*" idea; Frustration with commercial *; A desire to make improvements; Change of * technology from * to * opened a pioneer field for management products and know-how; As I was continually * and * my grandchildren's *. I designed and built a * that need not be *. It was light enough to enable * transport it around. Could be *, in or out of doors, and *; Patent #1: To improve *. #2: My effort was to improve the * with the use of; Problem of the present machinery; An idea for a more effective method; Facilitate own time saving; Personal--for a better, simpler, and more efficient way to *.

The energy crunch in the 1970's; Gas shortage; Using too much gas *.

I thought it was a good idea and still do!; At first, just a personal interest in the idea. Later, it became a challenge to patent the idea; I just had an idea. Did the research and developed it; It was just something that made it easier to use on the thing that I used it on, and there

wasn't anything like it on the market; Made * for my own use to make my * more * and *.

Operating my own *. Have since built 2nd version on new *.

Related to own profession.

My * was my precipitant; Conceived idea while * and proceeded toward getting the patent.

I saw a problem; Problems we had in our own * with *.

Request from customer; Market surveys determined a widespread demand for the type of product I had developed; My [spouse] wanted an adjustable *; There was a demand for such a product but no one had proceeded in my direction; Market request for * with new features; My [husband/wife] told me to make it *. We were wearing the * out in one place; These inventions were responses to the market place.

It was a challenge.

Safety and convenience.

DOE small grants program provided fund for research at my home. This helped me start.

I enjoy one new idea * into multi new functions. * was the key?

It helped to heal my mind during the stressful 80's. I have used the experience to learn how to think creatively. Solve problems. Find answers. Define questions, so the real answers may be uncovered!

Boredom.

Question 4: What sources of money were used to develop your invention?

33 Mostly.

34 Partners.

35 Waste of time and money; Grant money turned down in last stage of evaluation.

36 Was not interested!; Hah!

37 Double Hah!

39 CIRRAS at ISU put me in contact with * engineers and manufacturers; Iowa agency: If you are in Iowa already forget it!; S.B.A. Loan through local bank; The bank only helped after backing of friends with money. Had to put up collateral 3 times more than the loan was; Really---Its dumb to think that in America these * are involved in development.

Investors in new business; Small limited partnership; Partner.

Manufacturer; and tentative manufacturer and marketer; I had three small manufacturers or machine shops that built my units for users that wanted a specific use for them (at my specifications); Employer (manufacturer of similar equipment); Employer furnished research facilities and equipment.

Establish a "trust account" that is tax free for continued R & D [research and development] work on the idea that is paying off to finance more ideas as well as selling consignments, etc.

My company; My business.

Part of the budget process at work.

Seeking funding now.

Question 5: How was your product manufactured?

40 Numerous; For prototypes.

41 Licensed.

42 No agent can help you like you can help yourself; * foundry; Prototype *--but not yet a * product.

43 I had a subcontractor do some of the operations and finished the product myself. Later I took over all operations; Still looking for one; Assembled by * manufacturers in *, Iowa.

45 Still receiving royalties from manufacturer; Sold to manufacturer; But assigned the patent to a manufacturer--a different manufacturer than for the previous ones; Commission on each unit; Manufacturer built tooling for manufacturing right; I gave the rights to manufacturers and sell the * to *. They no longer manufacture the *. I did not receive a payment for granting the right to manufacture but did receive a 5% royalty on each of four units sold.

Each unit sold for $* and I received $* of that price; I have signed a contract--but so far no sales; Licensed; Both patents were leased for 3 yrs. and then dropped. I redesigned both and currently sell with a partner; Assigned to company; Started making it ourselves sold stock to friends and relatives. Company failed mostly due to one item advertising costs. Then sold idea to * company on royalties (lesson learned). "There are people that can do it better; Licensed a mfg. to build under my patent rights * Did not sell patent. I maintained control of patent; Company has contracted one for market display.

Hired a manufacturer to produce the product; Hired a fabricator; Castings made at foundry, one plastic part made outside, machining done inside; Had one manufacturer make parts. I assembled; Leased idea to two companies to manufacture and market and when they went broke proceeded to manufacture and market it myself; The machine shops built under my specifications; By job shop, time and material; I made the units to begin with and then the *. Now it is manufactured by a company that was started for the sole purpose of selling these units; Machine shop; We did search and search and had made the mold for ourselves. Then had a plastic maker do it for us; We have outside vendors that supply parts, we manufacture some ourselves and we assemble final product; Hired a manufacturer;

Purchase of hardware items already on market but being used for another function; Found a good plastic container manufacture; Manufacturer; Subcontractors were used for approx. two of its many parts; I own a machine shop, I prototype it *; Own mfg. co.; Manufactured by company I work for; I designed the parts and had the tooling custom made; Pd. mfg. co. to build to my specs; I own a small manufacturing company and it was an improvement on existing products; Agreement with * mfg. firm; 3 turned it down; Mold for mass production need minor alteration; Use a computer to model the invention; My business; Started with subcontractor--experienced time delays and quality control problems; It is a process--the components are off the shelf and its cheap and it works.

At this time, I have not yet been able to market my *.

I hired APRC (American Patent Research Corporation) out of Washington, DC to try to find a manufacturer. But never worked out.

I am a * that got laid off.

Made own prototypes--has not been manufactured as of now; Only the prototype has been manufactured as of this date; Technical grant from * (no money) * and * plus my * to build prototype; R & D still; Years of experimental *; Nearly ready for manufacturing in *; Only working model.

*NiH--applies--not invented here!; It is very hard to get a manufacturer interested. They wouldn't give a penny if they can help it. They just want to know how it works. Sometimes they'll be interest what person has; I haven't found anyone to manufacture this important device.

Two others were to pursue it but never did.

Stolen by other manufacturers.

Question 6: Did you encounter these experiences with manufacturers?

We formed a corporation. Another manufacturer priced it out and did some contract work for us; Assembled in quantity with success; Capable to mfg. by self; I could do my own development and manufacture; Most of my patents are manufactured by my own company; Own company; Sold through own company; Own company; I am the manufacturer; Made tooling to mold parts, built jigs, etc.; We set up manufacturing capability ourselves; Was enthusiastic and produced it myself; Manufactured ourselves; Manufactured in my company; I had no experience. I done it myself at home; I chose to manufacture it myself; Paid a subcontractor (usually acceptable); No volume to warrant an outside manufacturer; Furnished drawings for pattern--took pattern to foundry and paid them to cast the necessary parts; No others involved; Most subcontractors were cooperative;

Manufactured by own firm; I am * owner of * *; N/A Manufactured it myself; Manufactured on own; Never attempted to procure a manufacturer. Felt I could begin on own; I can make it myself, I developed my own mfg. equipment.

Have NOT approached any manufactures; Have not contacted manufacturers yet; Have not proceeded with production at this time; Have not pursued, lack of time; Did not contact any manufacturers; I have not presented this invention to any manufacturers yet; Have not marketed it yet. Hired agent but no replies; Have not contacted any manufacturer; Did not attempt to sell to manufacturers; Was not offered to others; Didn't use outside manufacturers; No manufacturer was approached; Was not submitted to manufacturers; Didn't ask; Never got to that stage; Did not contact others.

Maintained the position the present containers manufactured were adequate and mine was too expensive to start manufacturing; This product would be expensive to produce on a small scale due to tooling costs, this would make a test marketing try difficult; Yes. Thought it to be a salable item, but hesitated to invest at this time; No such luck. No one wanted to invest money; Said it took too much money to get it going. Some thought it a very good idea; Interested but expensive to tool and market; They

thought the cost would be too high; Due to the high cost of mfg. in this country, it will be necessary to have it made by a foreign manufacturer; I have a manufacturer but I lack financial resources; A *: Companies were not investing in new products during recession early 1980's.

This is a governmental type product.

Due to low farm income of 80's was not interested to take on any new products with out proven past sales or add to their overhead; Two manufacturers wanted to furnish parts for it. I wanted to sell the complete idea.

Your question is too general experienced all of the above when talking with different mfg.; We probably went through 20 different ones before finding one responsive; We have numerous vendors and have changed vendors. I have experienced about all of the above from different vendors.

I worked with <u>three</u> manufactures. Two were unproductive; * had engineers very interested. Were really wanting it and then 30 days later, I got their "Dear John" letter. * wanted to develop it but on the advice of my patent attorney, I passed this opportunity up; No one able to produce entire product.

Royalties too small; The above are not applicable. I tried only one manufacturer and there is nothing to manufacturer so all you could sell would be licenses; Leased to * and * firms which went bankrupt.

He made our product and sold to other people without telling us; Manufacturers are generally not interested in developing market of new invention. Best to mfg. yourself after you * new market then they are fast to copy art work; Mentioned stealing the invention.

Contacted manufacturers. Not interested; I only contacted one; * at * was told by someone in * that the * is obsolete, therefore, my * was no longer needed. * are used to stop *. However, if the * still continues, the * is still used; No one even wanted to discuss it. If there was a better way, they would know it; Bad publicity on * made manufactures "turn off" on the product from the beginning; I had to go to numerous manufactures before one agreed. As yet it hasn't been marketed; Wrote many manufactures but none interested; Auto industry is simply not receptive to new ideas.

Idea too new.

Market controlled by federal government.

Most will help if the request does not stray from the normal production of their plants. * R and D work done.

Liability insurance restriction; Does not apply; Product liability insurance biggest problem for self and others. Invention not complicated enough for large mfg. like *.

Generally no problems.

Do not know.

Changed design, make it too complied. Caused problems.

Most did not take time to understand the big picture.

Lack of capital, poor industry experience in honoring patents. Very poor attitude, Americans are averse to investment risk.

Licensed the first two manufacturers. I * on two of my patents.

Not offered to others.

I could not get a manufacturer interested in my invention.

Did not approach manufacturers.

Haven't contacted many.

U.S. manufacturers are (Non-Risk)! They won't bother helping out until it is marketed, and the demand is very positive. One reputable company even suggested I sell it to Japan--they have all the money.

Question 7: How did you market your invention?

59 Present plan of action; Hotels/motels; Clinics and camps; Used it as a gift to V.I.P.s only; Professional publications.

61 I manufacture; Through own company; Market through own company; Market own company.

63 Hired an agent.

66 Sent mailers to machinery dealers. Set up dealer network; I did develop a mailer and sent a few out; Distributor was used with one invention; My own dealers installed about * as prototypes; My own 40 dealers; Through 40 dealers; Own dealers; Market through our dealers.

Made product in garage and hired salesman at first, then sold to manufacturer; I worked as consultant to manufacturer for two years; The * machine shops. It has been fully tested and proves to be exceptional. I received no money but I had the satisfaction of creating something really good; I presumed that * was doing the marketing. I later learned that they were not. I, personally, referred requests to * for the units which were sold.

No interest was shown. It was not marketed; Didn't market it; None, no attempt; Still in process of marketing.

Advertising; Magazine ads, trade shows and dealers and distributors; To begin with, people just called and wanted one because they read about it in various publications; Marketed it myself in magazine ad and word of mouth; By advertising in outdoor sport magazine. Mail order; The photo for mail order was terrible and didn't do anything for it.

By word of mouth.

Sent samples, letters, and phone calls.

Sold propagation rights to a *.

The tools that I have sold so far, resulted from conversations with other individuals in similar industries.

Lost interest.

Advertised in * magazines; I set up press in 48 magazines and 15 national newspapers; Had an ad in a * paper. * to * people wrote. Only one would spend money. I viewed this as a market survey; T.V.: * station * have profit sharing contract. They made commercial; Trade magazine; * magazines, press releases, etc.; I sought free publicity initially, then advertised; Sent news release and direct mail--no positive results; Sent ads to manufacturers; Worked with mfg. on introducing it; service; advertising and all promotion; Manufacturer failed to invest in advertising at present date; Marketed myself by advertising; Use advertisement; National ads in magazines.

The U.S.* is the only buyer of *. Until the states are farther along--the Feds don't move; Fulfilled government engineering and economic requirements.

Use invention in designs of * in my consulting * business.

The original marketing was done by manufacturers for both patents.

We sell now on the products performance.

I had started with * and they went out of business. Finished getting the patent myself. Can't afford to put any more money in it.

Was sold by the * them manufacturing it until time of his death.

No compensation has been received since then. A "Consultant" fee was paid--but no "royalties." Because of this being a "word of mouth" agreement, no recourse has been possible.

Sold a very few to retail outlets.

Re-orders by personal phone contacts.

Licensed.

One product we have, we use a sales representative with a national group of sales representatives; Now have some representatives, too; and direct company salesman; Salesmen said they could sell it but did not; Reps.

Showed at one * show.

My business.

I hesitate to attempt to market it through trade shows because I can't afford foreign patent protection. I'm afraid that an overseas manufacturer may copy my idea!

No marketing involved.

It is absolutely impossible to market anything under this setup on this system unless you have the kiss of the establishment. Otherwise it is a continuous rip off with

you footing the bill. Unless you manufacture it yourself and stand the loss.

First we ran the company and then sold it for royalties.

Not market any more.

I divided ownership equal with * to build prototype.

I spent too much time keep up *. They not get it on the market. Any one have patent pay after it one way or other. If no one take it on start your own right away. Mfg. it your self.

I need help--please advise.

Question 8: To date, what have been your total sales?

67 The three * shops found their customers. The customers received their * at cost.

68 Home only.

70 Per year; My royalties, at $.10 per *, do not even support the hobby.

71 Sales by manufacturer of this invention.

72 One job $*; I did it at home--no help; Have no idea as sold business and rights; I haven't kept track of the total sales, but I think the units sold average approx. * a year at $* each; $*/month x * people for around * years = $* approx; This item will never have huge sales because the market is limited to *; Let's just say that the original

cost of getting the patent has been paid for more than once. . . ; Sold some prototypes; But we recalled and returned $ on first units; None; Total sales--nation wide and some foreign total in dollars--multimillion;

Question 9: In economic terms, which item best describes your patented invention?

73 But I still owe the bank; About one idea in 6-8 has produced profit. When you have one, give it everything you have; Not worth the effort, though.

74 Due to manufacturer inexperience; At this time; Small for me, bigger (as it should be) for manufacturer.

75 Breaking even so far but are adding to line; Sales have doubled every year!

77 Actually lost money--patent process is expensive; Loss of own time--major. Inventory on hand should cover balance; Presently; Don't know as yet but certain it will be, once put on the market; This is our *th year of sales, it should be profit from now on; Because of patent and development costs.

Profit now. Break even first 10 years; After 3 years showing slight profit; Some profit; Limited sales for * product changes and advice from customer; Great learning device!; Not enough experience.

Question 10: What are your concerns as an inventor (about your invention)?

78 Almost always, but not serious; Was done.

83 Due to the high cost of manufacturing in America. It will be necessary to seek a foreign manufacturer but found they are not reliable.

84 Direct selling yourself during first production phase.

Biggest concern is our system is not quick enough to protect patent holder. Large companies violate patents and tie you up in court for years while they make far more profit than settlements will cost; Not underpricing but competition from other implants; I believe there is a need for a product of this type and some day the right design will market very well; Two manufacturers said it would have to be made overseas to keep costs down and retail price down. They did not have overseas contacts; Overcoming bad publicity of prior art; I have none and am happy; I'm not worried at all, another company did copy our product but our patent atty. put a stop to that quickly!; I received a card from a firm that would give me addresses of 5 firms that may be overlapping my invention. I did not follow up on it; There are other models being marketed.

85 How to overcome the consultants reaction to my even doing it.

Lack of motivation to market as a result of vulnerability to liability and its effect on other business; Liability insurance; Product liability.

Market too broad to enable pinpointing effectively.

I could care less.

At that time, * told me that a * did not like to do more than one operation at a time. I knew right then they were either lying or did not really know the * thoughts.

To be able to find the time to pursue this further.

Declined by manufacturer.

* does not wish to continue making the *.

Marketing, marketing! The cost of marketing has been out of sight for national advertising; The inventor must stay with his product. Improve it. Promote it and be a part of it; Finding a market; Marketing is hardest of all; No time to devote. Concern for losing money. Depressed * market; New markets require market development. The manufacturer wants to make the item but does not want to open a market; Do not have adequate capital for advertising marketing. I have to make the consumer aware of the product, create a demand before distributors and discount stores will buy my product.

Tooling, marketing and regulations.

No problem. No one would be tempted.

Federal control by law.

I can say I did it.

Design not totally refined.

No concerns.

One buyer (though big) is a slow process to sell. You hit a home-run or go broke.

Small change by other manufacture and patent means nothing.

Continued availability of materials for manufacturing * Aluminum and Plastic *

Technical difficulties.

I was told that patents are not solid unless tested in court and that 50% are rejected. I would not take anyone to court because of cost.

Going through a patent attorney and patent search and design engineer.

Limited pool of manufacturers, economic conditions, attitudes.

A total new concept must always be accepted by the public or ?

It has become obsolete because the demand is not there.

Can't make it cheap enough. Stores want to mark it up four to five hundred percent.

Question 11: When did you renew your patent? When was your patent granted?

First patent was *.

Manufacturer must do this.

11 years; Original patent issued for 14 years; Original patents are granted for 17 years.

One approached me and I sold to him.

I have a total of * patents. Only on the last one did I have it under the following plan; Have * patents--first up for renewal *; Early *. I have * or * patents (don't know); Last patent issued before renewal laws went into effect.

Are patents renewable?; I'm not sure, our attorney handles that!; Didn't know it could be renewed; I don't understand this question. My patent is valid for 17 years; Has not come up yet; Don't remember for sure.

Didn't renew; Didn't renew; Never; I did not renew my patent; Did not renew; Did not renew it; I haven't; Did not renew to my knowledge; Didn't renew; Not yet; Haven't renewed yet; Have not renewed as yet; Haven't yet; Did not renew; * years, no renewals.

Design is not renewable at the present time--patent is for 14 years; Patents are granted for 17 1/2 years; Believe patents were issued for 17 years.

Up for renewal in 14 years.

Several patents; I don't remember; Earlier; *. Renewal not required at that time; 197*, 3 patents; 5 years ago; The Patent was not renewed; 197*--I think; Filed 198*--Received in 198* [four years later].

APPENDIX C

Inventors Responses to Question 12

Words of Wisdom

Do you have any words of wisdom? What would you: (a) do again? (b) not do again? (c) do differently? and (d) help you could use? The inventor's responses to these questions were quoted below. Identifying names, places, dates, patents, products, processes, and uses have been replaced with *. Addresses and telephone numbers have been removed. Please respect the inventor's anonymity.

Be sure you have something useful that truly works before you try for a patent or sales. Something that will be very useful to a large potential market and something that is not a minor improvement over an existing product.

****

a. Yes. Know your market! Know your costs! Sell at a profit!

****

I'm not sure how I could do it. It is very difficult to market something new. I haven't gave up. Need patent lawyers to get patent. In the interest of * I don't know

anything better than I have. If I can be of further help, feel free to contact.

****

Marketing assistance.

****

Evaluate C Corp. S Corp. or Schedule C.

****

I need a manufacturer to build and market the product. It is profitable and is better than what is being built today. I did not want to risk $2,000,000 to mfg. and market the product. It is still good and the idea is for sale at a very low cost as it always was. Most manufacturers were too busy in the good years and in the lean years it would cost too much to re-tool.

****

I would have set up my contracts for allowance of more personal involvement.

****

* [men/women] of * each investment--it took 2 years to get manufactured with a profit in the second year. One partner was running a * which helped cost and connections. Other partners * so knew where to start sales. Determination and work at home to get started. A lot of faith in product.

****

I would bring marketing of the product along with the development.

****

If you have a dream or idea that would benefit others and is marketable, go for it, because if you don't we will never know what the outcome would have been.

****

Develop your ideas fully before obtaining a patent. Do not get ahead of yourself. As in any enterprise a proper order of priority must be maintained. My project was a novel idea and was granted a patent, on the first petition, but the key to success is marketing. If a idea is undercapitalized and under marketed it is due to fail, as my project did. I learned a lot, the hard way, but someday I will try again.

****

Everything went pretty well as planned--except marketing--we found this to be our stumbling block. We kept costs at a level that we could live with.

****

People who evaluate new ideas or new uses for a product are generally unimaginative bureaucrats who are interested in the perpetuation of their agency rather than a new idea.

****

Would check market better to see if there is a demand for product prior to investing money to develop product.

****

Getting a patent costs far more than small person can handle and still have money for capital development. To really get product on market you are forced to give away a lot of the control of patent/product to get it manufactured in volume and marketed properly.

****

1. Do an extensive market survey. 2. Try to find out if some one else is making an equivalent product. 3. Figure out how much money you are going to need to start with for a year and then double the amount and allow twice the time you think it will take. 4. Work.

****

Don't underestimate the difficulties. There are many impediments from government and regulation against start-up companies.

****

Product needs modification to improve.

****

When patenting, do not be so specific in the description of the item or method that you invite competition from someone who spots a loophole. This hasn't happened to me but an acquaintance. If you assign a

patent, be extremely careful to cover all possibilities of being cheated or cut out completely from financial gain. This hasn't happened to me but I know of a sad instance. Get copies of patent laws and read carefully. Hire the best patent attorney you can find.

****

a. You bet . . . I have 2 more prototypes that I am presently working on.

****

The information you requested will hold true on both patents. Wisdom I did get and a lot more, didn't make any money, but I had a lot of fun and an enormous amount of satisfaction. Couldn't have gained all the insight any other way. From the insight I gained from this adventure patent right's should be reduced to 10 years or less because hardly anyone gains from their patents except drug and chemical interests. It seems an ordinary patent becomes obsolete soon after being issued and promoted. I had a great idea on the * improvement especially for the * but the demand was poor. The * was a wonderful improvement on devices using a * but the * was soon on its way out after the introduction of a * that the average non-skillful person could use with ease. That about sums up the situation and hope I've done some good for all concerned.

****

Not patent it. You don't have to get a patent to protect your interest until 1 year after it is first sold. Prior to that your work is protected if you document that you developed it. Later a patent allows you to sue if someone copies it, if its worth copying, then. I would also have done some market studies to see if public would buy it.

****

A--yes. (1) Market analyses must be done to determine if you can manufacture your product and still be able to sell it at a profit. You will find that each tier of sales adds on a given percentage which will greatly inflate your beginning cost of production. (2) Most end sales operations are looking for some type of in house advertising which they expect as a free part of your product. (3) Product advertising and packaging seems to be very important. Product association with long standing products or practices is a must. New ideas increase your overhead because of the education you must provide. Feel free to give me a call as I am more than willing to help get any new ideas off the ground. P.S. I currently have many ideas that need developing.

****

B--1st try to manufacture and sell myself. A--2. Lease or sell to manufacturer of this line of *. C--3.

Incorporate for protection and I.R.S. D--4. Help that is needed by small inventor is help in locating suitable manufacture of this line of product and getting his rightful amount of royalty or lease or sale for value of product produced.

****

When you obtain a U.S. Patent you should also apply for a Canadian Patent. Because the close proximity of the U.S. to Canada.

****

I would forget about spending the money for a patent and manufacture the product myself.

****

I have another product in mind and will develop a prototype as time permits. I have a will to create and find the effort satisfying. I would be interested in visiting with you sometime to hear about your invention and program.

****

This is #**--have patents that are * items. At the present time have a number of items under development and in the early * stages. My operation is quite modest and the lack of developmental capital limited my progress. But !!----- It keeps me off the streets and out of the pool

halls and beer joints!!! Wish you success in your venture and the obtaining of your degree.

****

Every phase was a education in itself. Each of inventing, patenting, manufacturing and marketing concepts would require 10-20 pages to explain the do's and don'ts I now know. Write me when you're ready to coauthor a book. P.S. Look for * on the market.

****

I probably would not apply for my patent a second time. *, * and * were the only companies at that time in need for my *. All they were interested in was bypassing me and making their own * a little different. I have another idea for a product in *, but from past experience left it in the back of my mind for the past two years. Biggest fear: process of marketing, process of manufacturing, fear of failure, hate lawyers, time to see it work.

****

I am just plugging along--making changes--trying to get into the * market which is a much bigger market than the * market.

****

To find a manufacturer on your own is not easy. Never give up--keep trying--if you really believe in your product.

****

I would place less emphasis on design protection and more on development of a marketable product. I would communicate directly with the people who are potential customers for input regarding desirable design features. If you have additional questions, feel free to call.

****

My experiences in the patent field have been very interesting and fun. The biggest problem is money. The old saying, it takes money to make money is true. Patents and prototype is one small part of this process. Marketing is a very costly part of the adventure. Unless you have an item that * people * * you for the product, you can just * forget it.

****

Based on the amount of time spent the last three years, more than likely would not do it again. It's been said that it takes 3 years to show a profit in a new business. This is true in my case. If you don't have determination you will fail, after the first reject from a customer. All in all it's been fun.

****

(a) I'd get a good patent lawyer to work with. I'd also try to develop the main idea independently. On a second patent attempt, I went jointly with another person and it fell through because of conflicting approaches. (b) No deal with a manufacturer without a written contract. (c) I would get professional advice before expending large amounts of money. (d) College and university help in marketing and technical advice.

****

Design to make improvements on the idea more difficult. Infringement must be clear cut.

****

Most of us should do more R and D before applying, but are afraid of exposure and loss of patent rights.

****

I would take more time in getting the patent written up correctly, (so others can't copy) and so that changes made will still be covered.

****

It has been a wonderful challenge.

****

No regrets on obtaining patent.

****

Would have utilized patent earlier. I procrastinated implementing patent.

****

Any words of wisdom would depend on the invention. In my case * is a tough market to compete in. Being a * myself this is easy to understand. The manufacture of a product alone (after a prototype has been developed) can breed bugs into your invention. I advise that you maintain some degree of control over the quality of product. Present your invention to manufacturers using confidential disclosures only. If your invention revolutionized prior art it may be extremely difficult to gain buyer acceptance. If you still have faith in your invention, it may take fierce advertising to overcome the market. Make sure you and the manufacturer are comfortable with the dollars and risks involved, i.e. let manufacturer bear the costs of advertising in exchange for reduced commission on your part for a period of time. Keep yourself in a position to license someone else to produce your invention if you become dissatisfied with current manufacturer in order to guard against shelving. And sometimes the market does not accept a new product no matter how good it is. Example: the rubber tire was never accepted until years after it became public domain. Use a patent attorney, not a patent agency, negotiating with a manufacturer. If you don't have an attorney--get one. Because you'll need one if piracy occurs.

****

God worked things out just fine. I'd lean on him more because now I know him better. I wouldn't do anything different it was an experience he wanted me to have. Bless his cotton-picking heart. Seek him first.

****

Seek the kingdom of God first. Again it was a God-given experience I wouldn't change.

****

Of market value to * < $500.

****

You picked the one patent that I alone was responsible for. It worked, it was cheap, it would have been an improvement in the market. * controlled the market at the time and later we developed other patents.

Sell, take profit and go on.

I would have sought more technical and business advice up front. Nobody has the same amount of energy and belief in your invention as you do. I believe more assistance could have come through state and local organizations in getting the prototype completed. A management team is most important if all assignments and tasks are to be carried out effectively and in a timely manner. With a management team, several things can be executed at the same time. Usually money is a problem especially in case contracts

should be made with manufacturers, investors or anyone else defining their roles, realistic expectations and commitment. Good Luck and give me a call if we need to talk further. I'll be happy to help.

****

Proceed on one's own initiative on something. You believe and have background for knowing the needs for your invention.

****

S.O. Blank, who invented the Roto Rooter in Des Moines, said a patent was a license to sue and he wasn't far off, if at all. Try to get someone with sales experience to put money into it and accept a share of company. Not have great hopes. Anyone can have an idea, a practical one, someone can produce it. But you must <u>sell it</u> and that's the hardest part. Be practical. Obtain the patent, advertise it, then sell if possible. Unless you have another source of income and much time, taking an idea from model to patent to product is not often feasible. If I had the money, I'd hire experienced sales people to run sales campaign and follow through on foreign sales and would try to obtain sales rights to many products to make the load lighter on any one item. You need multiple products. This product line is for sale. I'm ready to retire and have other interests. All parts, with exception

of * and *, are made here in Iowa. Have machines, tools, molds, etc. and currently sell on the market. No lack of potential customers but it has to be demonstrated to generate interest. I've had another patent prior to this. Good product but same general situation. Haven't patented other ideas that have been ahead of the crowd.

****

No.

****

I would not start a new business unless it could take advantage of significant advances in state-of-the-art. Inertia and competition of standard types of products are too great.

****

Get a better patent lawyer.

****

My patent was paid for by the manufacturer of the product and they agreed to pay for all patent infringement suits brought. (1 to date) This is good, however, they are not paying their royalty to me and I am considering filing suit against them. Too many costly legal hassles. If I could afford to, I would pay for patent myself or instead of a utility patent, I would get a much cheaper design patent which may hold competitors at bay as long as they don't find out it is a design patent. As a small

mfg./marketer, I cannot afford the expense ($50,000 or more) of a patent infringement suit. Make patent process more affordable to small concerns.

****

Pursuing a patent is very costly and I probably would not do it again. It took 5 1/2 years to get it completed.

****

I am close to * years old, so please take that into consideration. The patent you refer to is probably expired by now. I turned down many inquiries from people who had access to patent information over the years (14 year patent term). I can (if I live) produce the item in * for gifts to V.I.P. friends and relatives. Then let the big operators flood the world with the item in plastic. I hope you benefit from this reply. Keep moving a-h-e-a-d!

****

I just need time in order to contact manufacturers or money to hire a marketing company.

****

Listen carefully to those who have made money. Never trust any government agency, state, local or national. Distrust anybody who has not made money in your field. * S.B.D.C. told me that my consultant, who was a self-made multimillionaire, did not know what he was talking about. If you have any questions, don't hesitate to call.

****

Find a really good patent attorney.

****

I would first find a manufacturer and then proceed spending the money on a patent. A patent attorney does charge because he did all correspondence between Washington. Also, had our patent redrawn to fit specifications. Have to have a prototype made from your similar drawing. Patent attorney checks if anything is on the market. The total cost is tremendous.

****

I would spend the money I spent on the patent on marketing instead.

****

The greatest lifestyle is yours with sincere, persistent work on genuinely creative ideas. Keep in mind, no one knows as much about <u>your</u> idea as you do yourself. No one can sell the idea and the finished product as well as you can. Also, there are other protective patterns you can follow, such as "Trade Market" ™ Copyright © and selling patterns, originated by you that give much longer, exclusive control than just a patent. I.E. especially a "design patent". Also, a two year R & D protection that can extend a good patent's life by two years. I honestly believe there is more opportunity in creative ideas today

than ever before. I started out with ideas when I was *. I am * now, with more ideas than I care to develop but its still fun to try. I do want to encourage you to do your best, its a great life when you take some time to enjoy it. My first worldwide successful idea was the ORIGINAL * that led into *, * of all kinds. I held this market exclusively for * years. Other items followed in *, *, * and other industries.

****

Keep as much control as you can.

****

Simplify your new product. Be persistent and believe in it. don't be blind concerning the product. Talk only to presidents of corporations, if possible. I would never seek help from a government agency of any kind, except the patent office. Deal only with presidents of corporations. Simplify prototypes. Keep working for simplicity. All inventors need help (legal protection information) when presenting information and prototypes to all manufacturing companies.

****

I have other patentable plants right now, but I don't think it is worth the effort and expense.

****

I could write a book about it all. I would record every thought and drawing about my invention and explain it to a friend of no-blood connections. After they understand it, I would have them sign and date the disclosure. Seal it and record with a seal at the post office. I would not give any company any other ideas that they could develop without them giving me protection on my disclosure. I did this and after a few years, several of my ideas came on the market. I did have mixed feelings about this though. It proved to me that I could think and invent. I will say though that a [man/woman] cannot do this alone. Almighty God gives the thoughts that make inventions. It was nice to hear from you and to learn that there are people still interested in receiving patents. Some patents are so broad it is hard to recognize your work or creation. Maybe this is the best way, although a patent attorney should explain every detail. Even one word change can determine whether a claim can be granted. As you know, the granted claim has more power than the drawings and the descriptions. I became "brain-fatigued" after many years of thinking of my * and obtaining the patents. At the time I really enjoyed it, but I became "burned out". I took my [husband/wife] through periods of "highs" and "lows" and it made [him/her] too nervous to be put through all of this. If I had it to do all over again (I'm *), I would have hired or formed a

partnership with someone to do the promotion and selling. If I can be of further help in whatever you are shooting for, maybe I can help.

****

Hire a lower priced attorney. High priced attorneys mostly churn up large legal expenses in my opinion.

****

c. I started building when I was *. Now I am * years old and still working. If you need my help, maybe I can help. Telephone me at * if you care to call me.

****

I delayed getting together with a developer-marketer until after first renewal and would not delay that long again. It was a little difficult to find someone interested.

****

This particular patent is so simple, people copy it and I have no real way to control or defend my patent. I have about * to * good patents, but I do a poor job of selling the * or the patents. This is partly due to the fact that I enjoy inventing but don't enjoy selling. I build the * machine for about $*, have sold them for $* to $* each. They have replaced and out performed machines selling for $** to $** each of a different design. However, they are so simple, everybody copies my design.

****

This * was developed for a large * for his work. There are probably * of them working now in Iowa. I own the patents. Have not sold any units. However, it is a good design and probably should be manufactured and sold by someone.

****

Have a marketing procedure in place before investing too much in a patent.

****

I would probably not patent again. Too expensive to obtain, maintain and defend except for a world class idea and/or someone with very deep pockets. I have * or * other patents, obtained by various of my employers; they were large corporations. They had the various resources with which to defend their patents, detecting infringement and entering litigation. Too, in my experience, it's often easy to work around a patent and in so doing, conceive a better idea. I did that fairly often for one employer. One misconception most people have regarding patents is that the (or a) government protects a patent holder, when one only has the right to defend and must initiate and finance legal action. Although I have (I believe) several patentable ideas and keep thinking of more, I no longer seriously consider patenting. Another consideration is

that a worldwide economy is rapidly occurring, therefore, to adequately protect an idea, one would need numerous foreign patents. Finally, for good or ill, I'm a compulsive inventor and have been since a child and will be so long as I'm able. If profit were my motive, I'd have quit long ago, but hope lives on. Lastly, I will mention that I've tried selling ideas without success.

****

I believe you are on the right track. Get as much background information as you can. However, I believe every invention/inventor is unique in its/their own set of circumstances, and I feel it would be inappropriate for me to give you advice on something I know nothing about. As for myself, I would do the same thing again if under the same circumstances. May I say, just take your time and decide for yourself what is best for you.

****

I would recommend that you not try doing it alone. It is much easier to get effective if you can connect with an institution (as in my case, *). I have 2 patents. After I filled this form out, I realized I made it out for the wrong one (*) rather than the (*). If you want me to come up and talk to you about both patents, why I think one was successful and one is dead in the water, call me.

****

Would not do it again. Costs too much to get a patent and we didn't know how to get our product sold.

****

I would follow the same steps as I did in the past. However, I would advertise more and make certain that salespersons were offering the product (retainer). Any advice would be appreciated. Thank you and best wishes.

****

Lawyers' fees are expensive plus all other little things that come up unexpectedly.

****

Yes!! Keep that thought!

****

Would try to sell idea or patent because funds are very scarce if you don't have it already there to use. Very, very, very disappointed in state and local funds supposedly there for inventors or marketing. Marketing is, for us, the hardest part. Once our product is known in an area, sales soar. It's getting it there that is the problem.

****

I am left with the impression that individual private patents are becoming less and less valuable, not because of what they are, but because of foreign patents and more and greater amounts of free international trade.

****

Find a mentor, someone who can aid you through all the unforeseen pitfalls. Get advice from people with marketing skills. Stay away from bankers with big visions about your patent. I would not let a banker talk me into going into the manufacturing business again without the necessary education. I would do more research on need for invention or marketability before sinking life savings into it. I would seek a source of research, market advice, business advice, legal advice that would not cost all you had. I would appreciate help in getting the patent sold or the product manufactured and marketed.

****

Be sure you have the money to develop and have the fortitude to take disappointment. Enclosed is a brochure on one of my patents that was successful. I invented, manufacture it and sell it. It, too, was a new idea.

****

Would not do it again because new products meet with too much resistance. Great ideas are <u>not</u> always accepted. This is truth, not sour grapes.

****

Would not work further on * in a * field. No demand for improved process until public recognition of need occurs.

****

I would do my own patent work. I would not apply for patent without planning to develop immediately. I would work differently on modelling and prototype before patenting. Help I could use would be R & D work to provide best means of manufacturing without incurring excessive costs and marketing to targeted users. The biggest problem for independent inventors is resistance from established manufacturers to incorporate new products into their lines if they are likely to displace an existing product or products in their line. Tooling costs and uncertainty of market acceptance make it an unacceptable risk (if it isn't broke, why try to fix it?). American manufacturers seem to prefer wrestling with other manufacturers over their market share of existing, accepted products rather than introducing new products. The result has been that foreign competition is squeezing into the American market by taking product development risks. Lack of new product support weakens our economy.

****

I would be more certain of a need for the invention before spending money on a patent. I attempted to bring my invention to life during the decline of the snowmobiling fad. I believe CIRRAS is very helpful.

****

I went through the experience and I don't regret it. A person should remember that the world has gotten along this far without their invention and the world doesn't change direction easily.

****

I would not go into business without searching the funding available for small business. Small communities, such as the one I'm from, will tell you that there is all kinds of funds but in reality there seems to be none.

I would be careful about the advice others give you, no matter how professional they are supposed to be. Have a total grasp of the situation. Walk slowly into new situations.

****

I would sell more.

****

This invention applies to *. It must be incorporated when * is in the manufacturing process.

****

Hire a good patent attorney. Check around. It is expensive but pays off in time.

****

Manufacture and market. Generally I would never spend any time trying to sell a patent: Our main invention (development) could never (for practical purposes) have

been sold for any worthwhile royalties. Now that we have * and * the market a number of very large corporations are duplicating our art work. They call themselves "Market Researchers"--you invent, develop * * * the market then the giant "Market Researchers" are all there to duplicate your art work. Fortunately most of them are as dumb at marketing as they are at developing a real new invention.

****

I would and am doing it again. If there is a problem with inventors it is the fact that they do not research the market for their product before producing it. In our case before we produce a new product, we go out and sell a sufficient quantity to prove its worth before we actually put it on the market.

****

Engineering and marketing help.

****

I would do it again. Spend more time on marketing and finance. And look into the other resources for more assistance.

****

Probably not--it has cost a lot--and no income has been derived. If you were to have a manufacturer beating down your door, or had an <u>organization</u> to help you market

it--maybe. In this case, an environmentally sound idea has been rejected. (Also great * saver.)

****

1. Need help marketing the idea to manufacturers. 2. Need financial help for testing prototypes.

****

The real problem is getting a major manufacturer interested in your product. I went to a well known * complete with their submission forms and detailed drawings. The reason this * was built was their design didn't work well, although theirs was the special * available through our company. As far as I'm concerned paid * do not have the field experience to know what works and what doesn't. It might look good on paper and under ideal conditions, but when it came to in-field conditions theirs wasn't worth anything. You can bet though they got paid good for it.

****

What I do is sort of a "hobby."

****

It's better to invent something many people need rather than something nobody needs.

****

I could not call on an inquiry in * or *, etc. because of time and cost. Dealers were only interested in sales that had already been made, not in new sales. So we had no

dealers. Had thousands of inquiries that only were sent brochures. Have sold 25 units and not one has been returned or ill received. I would be glad to visit with you.

****

Tried to manufacture and sell by myself but lacked the know how to market. Should have had a consultant.

****

Yes.

****

I did not proceed to get a "search" before I submitted for a patent. I felt I knew my invention and would know about anything like it. I found it educating to manufacture, advertise, sell and trouble shoot my own idea. My only problem is as a * I don't have time to do everything. I also farm * acres, farrow to finish * hogs plus feed out * head cattle.

****

* was not widely accepted. It took personal selling time which I didn't want to put in it--* styles changed, making it a problem to have one that would fit all--making a different one for different * styles not practical.

****

I would do it again. But I would do some things differently. I paid $**** to * to sell my patent to a

manufacturer on a royalty basis. They did send out information on my patent to manufacturers, but no luck. I learned the hard way, I wish I would have checked into more sources before I did what I did. I think they tried to help me, but they didn't. It was a $**** mistake. It gives you a sense of accomplishment to do something like this, but it also has its negatives. This * situation stopped about 3 years and I haven't pursued any other avenues. If you have any ideas or people I could contact, I would appreciate it.

****

Do my own manufacturing and marketing.

****

Find a reliable patent agent if its possible. My patent agent that we picked came from the U.S. Patent Office. A list of about 10--I picked one of two * and was asked why I picked *. I told * I thought * were more honest. * laughed and said thanks. (I was wrong). What was going to be $3**.00 to $400.00--(ending cost was $3,***.00 to $4,000.00.) All the contacts come from somebody that wants money to contact somebody. Thank you for your interest.

****

I would realize nothing is done in the time frame promised by parts suppliers, they operate on a different calendar--1 month = 3 to 4 months.

****

Ignore government agencies and private * and only rely on my own abilities. These agencies were discouraging and counter-productive. Political motivations (government agencies) and extreme aversion to even low risk venture capital would most accurately sum up my experiences with private and government agencies. I could not even get a loan with notarized P.O.'s and a * letter of credit. Why don't you trash the government agencies and set up a board to oversee the allotment of small <$10,000 amounts of venture capital to numerous inventors with promising inventions. Rather than giving 1 or 2 inventors/companies the entire sum of the state's allotment. Spread the risk, diversity. There's a lot of creative people who are out there who don't want to play games with government agencies. Our current sales are "booming" and we are constantly back ordered but, it took me ten years to do thanks to the lack of any "real" support structure. (The Japs--kick butt). We play games.

****

Would not apply for a patent. Only the lawyers get rich with the present set up. People copy your ideas after

reading the patent. They use the ideas in-house and do not sell it--so you can't get at them. The best way is to keep the secret to yourself and license it to the end user under a discloser clause. If you put your invention in a patent the world knows about it, and will copy what they need for their in-house operations. The Federal Government is the biggest crook in doing this. The different agencies of the U.S. Government are so big--that once they see or make up their mind as to what they want or need they put the "specs" up for bid. Then companies that have the manufacturing capacity, bid low--because they have no R and D expenses. The government gets the specs from the patent office, uses it and because the items will all be used in-house (not sold) and bid to government specifications. Your invention--only resulted in giving the government employee the insight into the specification of their bid specs. The inventor--by going the way of the patent lose all around. He first stands the R and D, then the cost of high-priced patent attorneys, then the cost of keeping the patent up, and if he thinks that someone is copying, more expense in proving it. Patents are a bum deal for all except the ideas that are one of a kind--like electricity.

****

Would not patent.

****

Tough to get a technology idea going in a predominately agricultural region. Midsection of country is tough on technology companies due to ultra-conservative--ag-oriented economy. I would do it all over without hesitation, however. I think we hear a lot of rhetoric about diversifying our economy. I'm here to say that I can't see any true assistance. I hope that the money that is being spent in these directions is helping someone because most of what has been accomplished by our company has been on it's own. In short I believe Iowa is a terrible place to try to start a new business. If you take it on you better put on your "Smith-Barney" cap and truly be ready and willing to make your money the old fashioned way. "Earn it". My company has been treated like a cross between a company with the plaque or a hot potato by quote "Economic Development" people. I hope these people are earning their money somewhere because what I see is another taxpayer burden.

****

Wouldn't put patent number on patent. Leave it as "patent pending."

****

Also should have protected it in Canada.

****

Give your idea a try!

****

I'm satisfied with the way everything has went.

****

There is a system of promoters, advance men, or other wise crooks that you have to follow or they will not let you patent your invention. Each is a ripoff artist, other wise a confidence man (men)?? Crooks. I have tried the system. The only chance was to manufacture it myself. . . Yes I have a working model and have used it now so no one can get a patent on it . . . . Now yes, I have other inventions. Some I have used, so no one else can get a patent, on them. No, I WOULD NOT try again. Anyone can get a patent, this is the U.S. of A. but they have a number or rip off artists, like the patent lawyers?? Everyone out to rip you off of money that is not really needed to get a patent. But we have put a lot up front money and because we would have bucked the establishment, after all the money we were charged. Not to try to get a patent anywhere or pursue any other courses. The invention would have made a convenient available for needy people at almost free of charge. I have made working models of other things for myself, but will never again try for a patent, because of who and what controls the patent office. All anyone in the United States needs to do is contact, or do it himself, the patent office and check whether there is such an item on

file . . then apply for his patent at a nominal fee and it should be granted. The same goes for a book but they try to cheat you out of that too.

****

Have money to invest in idea. Have help to development idea and market it.

****

You must have your product sold before you make it. Do not let salespersons tell you it is a good idea and yes we can sell it. I think you have to sell it yourself or find someone committed to do it. I think if I would have had time to go out and sell it myself it would have had a market. I have been a * for * years and have worked in several places before starting my own * shop * years ago. I done a lot of work for a * place and that's where I got my idea for a *. I showed it to a couple of sales persons in the * sales business. They agreed it was a good idea and said they could sell it. That's where I made my mistake. I went ahead and made some * and got a patent on it. With the tooling and patent I spend around $****. I did not sell one *. The salesperson said they thought it should have sold. It was a good lesson in not letting other people talk you into something. I have had a couple of ideas since but forgot about them. I don't have the time to go out and sell them. I guess I will just run my *

and let someone else have the headaches and time trying to get a patent and sell it. Don't be discouraged from what I said but be sure there is a market for your product and have someone to sell it (that you can trust) before you go ahead with it. If you have any other questions, please feel free to call or write.

****

Patent was developed while working for employer--patent was transferred to employer--in * employer went out of business. I still use patent design concept in * design in conjunction with my business. Consulting *--primarily * design.

****

Yes I would do it again. I feel the need for my product is without question needed and desired by *. Need help in marketing and manufacture. Please advise who can help me.

****

Hiring lawyers and fighting patent infringements gets very expensive.

****

1. Do not accept the Patent Office's first decision to turn down your patent. 2. Employ a reliable patent attorney and agree on the entire fee at the outset.

****

1. We underestimated demand when we began advertising the product at trade shows, and did not have an adequate inventory to meet the volume of initial orders. 2. Many of the components of the product, required separate subcontractors because several types of materials are involved in it's manufacture. Coordination of deliveries became complicated. 3. Marketing efforts began before decisions had been made as to where to warehouse our inventory, who was to assemble the *, and how the orders were to be shipped! 4. Initial quality control problems were experienced which required delays in filling orders until product could be re-engineered. All of the above would most certainly be done differently, based on our experiences! If I may be of any further assistance, please feel free to contact me.

****

I would do more field testing, find a way to eliminate maintenance, and reduce the cost of manufacturing.

****

Do not sacrifice quality build the best at a fair price. Work hard.

****

When you need a manufacturer, and after you get your patent, give me a call.

****

Would not patent it. Too expensive a process. Doesn't really prove anything.

****

Perseverance: to prove your idea or invention actually works. Marketing: the best idea or invention is totally worthless, unless its marketed right. Patents: Most of my patents have been infringed upon or copied. Reasons may be: 1. Inept Patent attorneys. (It's hard to read a patent to evaluate if all of your claims are incorporated in your patent.) Patent lingo. 2. Cost of suing for the holder of patent. (The litigation process is very costly and time consuming for anyone to pursue.) Big companies have the upper edge. The old "GOLDEN RULE." 3. I have a patent * which was assigned to * the above patent was granted *. I believe it has been infringed upon by * and *.

****

I was very disillusioned by Iowa State's CIRRAS Program the "engineers" have closed minds. They told me my invention won't work, when I have facts to prove it does. Grant money was turned down at the 4th and last level of evaluation by some staff person in Washington, DC. That money [would] have allowed me to gather more conclusive data about how well my patent works, which I feel would have allowed me to go to the manufacturers and sold my

ideas. As it stands now my idea is good but I don't have the resources to pursue it to completion. One manufacture on west coast is in possession of the documentation but its been 2 years and no progress ("Their too busy") is the reason. The sad part about my idea/patent is the ability to do something with it or should say "lack of ability," its a good idea and I feel it will die on the vine if I don't commit more resources to its marketing. I like many others have the skills to <u>design</u> but not to <u>market</u> ideas.

****

I have * granted patents each of which is improvement over last issued. I would have waited (if I had it to do over) and applied for last patent only.

****

A. Join Minnesota Inventors Congress, Redwood Falls, Minnesota earlier! They been in business over 30 years. B. Ignore SCORE-Exec's from old * can't handle mfg. and new ideas. D. Need professional help (engineering-*-etc.). *--from CIRRAS somewhat helpful. ISU helped at start--then program got pushed to SBDC and *--this was bad news.

****

It is very easy to come up with ideas--Marketing is tough. Suggest a market survey before spending too much money.

****

Do patent search. Take your time in deciding to go for a patent or not to go for a patent.

****

a. Yes, only in a shorter time frame. b. Comprise the design. c. I am on a committee at work to try and come up with a new product development process in a year's time. d. The help that an individual needs is to be able to focus on the project and have commitment from all individuals/departments involved.

****

Keep closer to licensee as to market strategies, etc.

****

I am a *, I wanted a * on the * of the *. The * is when * and many people get killed every year. I was the first to get a patent on this! Others have come out now like mine. But none like I really wanted was a cheap *. I guess a patent doesn't mean anything any more. I am disappointed! Do you have any ideas on how to get it marketed? I would like to save some lives. I have since worked on a * that I think will *. I have sent it in to Dept. of *. This would *. Can you tell me what you are working at?

****

He never got the recognition he deserved for inventing these *. The patent attorneys made all the money on this invention.

****

A. Yes. D. Financial, marketing. Iowa Resources Office was of no assistance whatsoever.

****

Just great pride throughout the process of development: Fun experience and happy with royalty results.

****

I think we would manufacture our items by *, rather than go to a manufacturer.

****

Not worry about patent protection but be first on the market with the best product.

****

A--I would and will continue to try to be innovative. B--I would not scrap my plan because of a few hurdles. C--I would immediately have my product manufactured and put on the market, or I would immediately try to sell the patent. Either way I would follow through. D--My biggest downfall so far, is finding the time to market my product even if I have it manufactured, due to the nature and eventual selling price of my invention in the market place, one

problem I have is convincing myself that the amount of money I would need for mass production would demand that several thousand units would have to be sold before I would break even. Although my product would be a very marketable, inexpensive item used on a promotional basis, it would cost much additional money to hire someone to do the presenting, marketing and re-stocking for me. To be honest with you, a person must either have the large amount of time to introduce their product to the marketplace themselves, or be in a position to part with a fairly large sum of money up front whether their venture is successful, or ends up to be a money losing situation. I would still very much like to have my product manufactured and marketed, as I am certain that it would have much potential to sell widely, but I am not going to allow it to drive me deep into debt. I hope this may be of some help to you; and I wish you the very best of luck in your endeavors.
P.S. At this time I have come up with another idea that I will follow through on if possible, due to its great potential in the area of * safety and lifesaving capabilities.

****

I stumbled on to an answer to a particular problem, knew there was a demand for the product and pursued the manufacture and sale of the invention. I researched

several companies, before approaching the first company, who accepted my invention and terms. Ironically, I was able to sell the company on the invention, negotiate a contract for the life of a patent, with minimum sales guarantees and percentages of sales, even before we even filed for a patent. The company was willing to file a confidentiality statement with us, before we discussed our invention or showed our prototype, we then set up a * demo. This alone sold the idea. Before contacting any companies, I did file a disclosure statement with the Patent Office.

****

I think that if you have ideas you must pursue them to the fullest. Most ideas seem to reach a dead end before they ever get going. Yes, I would do this again.

****

There is no general help for new energy efficient devices. The DOE small mfg. program is restricted to research in the high tech areas that it sponsors in a major way. This doesn't include conservation. Manufacturers are resistant to new products, even though needed, that are not part of existing product lines.

****

Decided not to produce this product. Financial risk was too great due to limited testing.

****

I am sorry I did not get to you sooner. As far as putting it on the market I had a company do a feasibility study and they were to put it in a trade show. I have no proof they ever did. I lost about $**** on this venture.

****

Hire a reputable organization for developing and marketing your invention/idea, which I didn't.

****

It took tremendous effort for the return. I'd look for something with a wider market.

****

Getting in touch with a legitimate marketing firm. A lot of marketers wanted to take advantage of the situation. A lot of them would want us to send them money to sell the product. Nine times out of 10, they wouldn't do a thing.

****

Do again.---My patent was copied and I could not afford to gamble $50,000 to protect it. It made me the most money by collecting profits as royalty thus avoiding social security tax.

****

I did it as a goal that I wanted in life. It would help if I could find a manufacturer. I did make one and use it at the * I worked at and it did *. They are still using it.

****

The state of Iowa talks a good game and mislead (newspaper articles) me as far as informational and financial help is concerned. The city government of * actually hindered me where I bought a commercial building from the *. Remember one thing: if you do not have your own capital don't even think about starting a business with a new, unknown product.---P.S. Nearly forgot! I kept a daily, detailed business log of every transaction for the first two or so years which you are welcome to see. You would get quite an education from it.

****

If you have an item that has public appeal, get it on the market with the assistance of SCORE and the SBA as they are the most likely to help.---You could also call a concern known as *. They claim the free kit they send you has all the answers.

****

Do it again: Use models for development, but proceed with patent until full size prototype was tested.---Not do it again: Take out a patent without rigorous, thorough market research and product testing first.---Do differently: Build a full size prototype and consult with SBDC.---Help you could use: SBDC and SCORE.

****

What I learned do not wait go after it what ever way it works. Again if nobody take it make it your self. Some time manufacturer see it and would be interested. My invention is not on the market. They are not interested. By talking to people it has works both way. After all each person would have to work with it. It goes one way or the other way.

****

I would not bother with doing a patent search. Also make sure the attorney had mechanical knowledge.

****

I have received calls from many frustrated inventors throughout the country. This being my third patent, I have been sought out for answers and/or solutions to the same problems that face any inventor. The patent process in itself is a test of one's determination and perseverance. And, even by being awarded a patent, inventors feel that the world will beat a path to your door. This is the realest of misconceptions. A patent in itself offers no guarantees. Before one applies for a patent he should: 1) DO AN IN-DEPTH MARKET STUDY. It is useless to file for a patent if there will be no demand for your product. 2) WRITE A BUSINESS PLAN. The second area of failure. The inventor must understand all that is needed to find success for his invention whether he plans to market or sell it.

3) SECURE FINANCING. After writing a business plan the inventor should now know how much and what is needed.

****

Perseverance is the key plus, and this is a big plus, MONEY!! Super expensive to market and develop a new product in such a competitive and back stabbing society. The stress and problems one encounters in inventing and marketing a new concept will test the strength of your stomach walls! I will never have to worry about an ulcer if the problems and stress I have dealt with thus far hasn't created one. Still I go on in the quest of the great American dream of success and recognition by my peers!

****

The first patent was granted for 17 yrs. The second patent for * was not renewed. It was because the manufacturer wanted patent protection that I started patent procedure.

****

This product was done with a limited partnership that provided for some tax benefits should the product have been unsuccessful. The new tax laws took away those benefits--therefore, it is unlikely anyone would invest in developing a product like this, which in this case means this is a profitable product that would not have been developed in

this country.---General from other new products:---1) The state of Iowa programs are worse than having no programs at all--they waste your time and hold out false promise. Absolute political joke--don't know where the $s go - but they sure as hell don't go to the initial development of new products.---2)The inventor needs help with prototypes. This can be expensive and normally is where the inventor gets hung up for lack of funds. Why can't community colleges and state schools make drafting and machine shop services (student courses work experience) available to legitimate inventors projects.---3) Marketing is where it's at!! Just have to stick with it. Identify market that will produce most volume with least effort at first. Imperative to really understand the market and how it works which is not always easy to determine . . . especially OEM.---4) SBDC is very helpful for business plans etc. when new product significant enough to establish mfg. facilities.

3 Not do again: The only winner in most patents is the patent attorney.

****

I have been granted several patents during my work. These are always encouraging to receive.

****

I would do it again. Next time I would have a working prototype before the patent issued.

****

Find a reputable patent attorney and a good design man and a mfg. company that you can rely on.

****

Do differently: Court costs to defend patent rights are too much of a burden for a small time inventor. Secure some way of defending the patent without taking a large risk of loss of all your capital in court costs and legal fees.

****

Did not know how to get it manufactured and marketed.

****

Do again: Search for participating funds.---Not do again: Hope economy would not be bad at time of inventors.---Do differently: Not get discouraged, and seek matching funds by grant for a long termed program.---Help you can use: On such a large product, financial assistance.

****

Stay on course and change nothing.

****

Dealing with manufacturers is a very tough proposition. The little guy gets pushed around a lot--

there's no one there to help.---CIRRAS is a complete joke, not only from my experience, but from others also. It is simply a self-propagating, self-serving waste of money. Best wishes, on your product.

****

Could use help from IDED, SCORE, and SBDC. But have found most of my time working with these agencies to be a waste of time. They are interested only in building their own agencies.

****

Deal with a local patent attorney.

****

Inventing is not for the average working man. The patent process costs too much for the average person. I have many good ideas but cannot pursue them.

****

I will not invent anything I can't produce on my own.

****

Be patient--have money to market and plenty of free time.

****

Could use help in developing and marketing.

****

I found all government agencies and colleges and universities who claim to be interested in energy savings,

heat recovery and business development of no help whatsoever. The above described institutions and agencies are primarily interested in propagating themselves and spend most of their money on their internal administration with no interest in actually using any money or time and assistance to business and industrial development just to building bigger institutions and more government agencies.

****

a--the same but hope for better luck/wisdom. d--eliminate or greatly reduce the redundant need (?) of lawyers, insurance, and other bureaucratic obstacles such as Workman's Comp., Unemployment Ins., and other tax collection requirements. Have included info. on the products in "Question," and other know info. on this subject.

****

Pursue your idea if at all possible, you only get so many chances. If you don't you will be like so many people that say, I thought of that same thing years ago--why didn't I pursue it. Under capitalization is a very big problem. I tried to get my product to market on a shoestring. If I would have had enough money I would have hit the market several years ago. * the right technological people to help is also a crucial factor to speedy development. Money and technical help is crucial.

****

1. Invent something more exotic. 2. Invent something less capital intensive. 3. Invent something that costs more to sell retail or to upper income groups. 4. Invent something producible oversees! 5. Patent worldwide. 6. Ignore established American manufacturing firms--they are dead. Some of the important things that impact invention development are: 1--does it solve a problem, meet a need, or * desirable quality? 2--Is it producible at an economically viable price? 3--For American production, will a manager see immediate return to the bottom line? If so you are in very good shape. If not, requiring a * *--go oversees. 4--The days of "build a better mousetrap and they will race to your door" simply don't exist anymore here. American investment is not pointed toward long term planning and investment. Who is building factories in America? Foreigners. Check your issued patents in DC. You'll soon see that the new inventions are becoming more and more dominated by foreign people and companies. It's not for lack of American innovation or creativity. Its the * from lenders and investors driving managers into "quick bucks". Its an invisible demand for positive cash flow, and NO RISK! You purpose to document the process of invention development and influencing factors. Every idea needs capital,

management and labor. Study the economic conditions in this country that drive capital * Do you have your own capital? Can you invite someone to invest theirs? In both cases the answers must be found to cope with the conditions. Those conditions, in America, are harsh. There are several thesis in that area alone and you have two more areas to research. Yes, I'm a cynic. Not about individual people, but about the systemic * to capital formation, risk and short term profit. As an American I look around my home and business and see products made--in Japan, Korea, *, China, Singapore, Hong-Kong, Germany, Sweden, Switzerland, Britain. The best stuff isn't made here anymore!

****

1. Seeking outside help. A--Funding. B--Management. C--Development of. D--Seek out Iowa base help. A person must have determination and perseverance in order to become! Without it, forget about even trying.

****

I still need help on manufacturing and marketing.

****

(Refer to *). Don't get hooked on your first idea always stand back and look at it critical. See how far it can go and ways to improve. Let your guts tell you when

you have the ultimate then go. You did a good job preparing this that why I answered it. (Good luck.)

****

1. Always sell the idea with patent protection. Don't sell just the patent (reason) the idea goes on forever the patent has a termination date. 2. Base your royalties on gross manufactured selling price (not on net profit, etc.). It is harder for them to cheat and easier for you to check. Don't try to do it all yourself. There are people who can do it better.

****

We find marketing very difficult. We can build anything but hard to get through to people.

****

The knowledge I gained has been invaluable in inventing other products. I am currently marketing one of them successfully so far in Iowa and *. Plan on national sales within 2 years. I could not have done this without the experience of the years since the idea of the * in *. There is no substitute for experience! If you would like to see the product I have been successfully marketing, you can find them in * or *. It is called the *. It retails for $* each. They come in a box of 6, and the box is a floor display when the top is removed. That sounds simple, but that has taken about 4 years of trial and error. But

NOW I feel I have hit on a very good thing, and I should become wealthy within 3 years! No Joke. If you would like to visit about this subject, I would be more than happy to share my experiences in person or on the phone, as long as you pay for the call. The conversation could take some hours for you to benefit from. I wish I had had this opportunity. I could have possibly saved years. My best advice--Don't give up! It may financially break you, but you will become mentally wealthy before financially.

****

I have spent over $* my * * a partner has invested $*. Our product is now ready for market but we do not have the capital to * the market. I would take the time to talk to * people if you wish. The PhD's will not concede that this unit is what we claim even when proven.

****

Maybe, who knows? One of my patent attorneys told me 30 or 40 years ago that a lot of times an inventor is better off to spend the money promoting his idea or product than to spend it getting a patent. This is partly because unless you have pretty broad coverage it is often quite easy to design around someone's patent. I have done it several times, had it done to me, and also I have prevented my patents from being copied. Having a patent is one thing--defending it is another, and making any money from

it quite another matter. On average, a couple of people a year want me to manufacture and market their idea. Most of them have very little idea as to how much time and money this can take and if the product is out of the marketing field we generally operate in, it just isn't worth it, unless the rewards are quite substantial I couldn't afford to take the time away from my regular business. Back in the late 40's when I was about 21 years old I designed a quite unique * and manufactured and sold a few thousand of them. I got help in trying to promote it from a few friends and my oldest brother, but none of us had the expertise to make a go of it. Had there been some of the help agencies available then, I think it would have been extremely successful in the market place. Generally speaking, I am a very self-reliant person. When I discovered early on how difficult it can be to interest a manufacturer in one's ideas or patents, I just went into the business of manufacturing them myself and that is why I'm where I am now. I own * which is *.

****

I would try and get my financing together and do it. You have to market it when its the right time.

****

Once I had it developed the * economy got bad. I have * patents and I should start a company and produce them but I do not have the time or money.

****

I would personally run down the road with it and find out the pro's and con's of the product from the user. The ones that bought them like them.

****

If I had the finances I would have put some out on consignment. I could still do that. I also have a recent patent on a tilting trailer that is very useful and needs to be marketed.

****

Iowa firms listed on * are much *, some leads, little positive action.

****

We paid nearly $* to a company who provided us with what looked like a kid's drawing compared with $* [much less] patent lawyer's drawing. But you have to see for yourself.

****

Mfg. interest/promotion access to marketing contacts promotional help--financial interest/backing.

****

Follow through with mfg. and marketing.

****

Include a distributor or promotor. My idea would best be sold by a * type of store. My manufacturer sells through dealerships.

****

Under separate cover I am sending an article that will quite well answer some of your questions. I will stress one thing--when you sell try and get a % of dollar sales instead of a set sum per unit. I sold one patent (licensed) for $* per unit sold and inflation made it about 10% of what it should have been.

****

Research market acceptance early. Early cost studies on competitive products. Seek professional marketing help.

****

Get a good patent attorney. * is *.

****

I would do more research before applying for a patent, to be sure it would market well. It was a good experience although it didn't pay off.

****

If I did this again, I would seek a partnership with someone knowledgeable in marketing.

****

No comment.

****

I just need time to pursue marketing--too busy.

****

I'd do it all over, it was a great experience. Capital backing and marketing expertise are vital.

****

Without a great patent attorney - I feel you are doomed. * law firm, was terrific.---Don't hope for a grant, even if your idea is fuel saving and a pollution deterrent. The grants exist--but funds for the grants are apparently non-existent. I have spent over $* so far, and still haven't a marketable product. Lack of available funds has prevented me from further pursuit, as molds are quite expensive.

****

Do differently: I have nearly * other inventions but have not patented any, as of yet!

****

Stay away from the American Auto Industry. In dealing with the inventors there is no code of ethics.

****

Keep trying and finish. Don't place much faith in free help. Be careful and secretive in some areas.

****

The problem was probably the part that the buyers are not interested in a single product as opposed to a complete product line. I will probably be successful if I can find an established company that will add my product to their line.

****

Sorry for the delay, the letter just caught up to me. Good luck. New ideas sell slow!

****

Get into a position to do the manufacturing as outside manufacturers are not reliable. Our firm is now in this position to some degree and expect to expand as molds are ready for our new inventions.

****

a. Probable apply for patent after say more prototyping. b. Compromise myself with (1) patent attorney. (2) manufacturers. c. Spend more money to prototype and refine the invention. d. Good help is hard to find. (1) Present mechanisms for economic development are either under-funded, politicalized, or overworked. (2) Counseling by say these groups Econ. Dev. or SBDC could be improved by several methods. (Note did not exist when working on patent app.)

1. Make sure that applicant IDEA is fully developed. 2. Introduce applicants to low cost prototyping methods like

Lost Wax Casting, Computer modeling. Indeed classes should be offered to teach this stuff since it is an art and takes time. However it is best to have a model of the invention, carved out of wood if necessary, (and non-functional) before the SBDC's rush to get a Business Plan. Good luck.

****

Too much money to get a patent. Spent everything to get that far. Lawyers too expensive. Seems like a gimmick to get your money.

****

b. Liability is too much of a risk. I will carry this monkey on my shoulders as long as I live. I can not sell the patent and get rid of the risk. It is not if you get sued, it is when. We have far too many lawyers in this country! I would like information on your results.

****

I will try to give a brief history of my patent experiences.

When I was a kid I liked to take old spring-wound alarm clocks apart. I even got some back together so they worked. In high school and later I experimented with electricity and took engines, transmissions and the like apart. I have subscribed to several science and scientific magazines.

This is when I became extremely interested in the patent process, and not long after had a vision. (I don't know how to describe it, but it was a feeling that came over me, and I was 100% sure that someday I would own a patent). So down through the years I remembered this occasionally and assumed I would come up with some kind of invention in * since I *.

About * years ago I started working for *. A fellow I was working with brought a * to work. I had seen one like it when I was in high school and had made several at that time. We started making and fooling around with them at breaks and lunch hour. This evolved over several months until I came up with an idea for improvement. It was simply a *. I did not know if it would be patentable. I also had drawn plans and experimented with at least * other ideas for * and *. I visited the university library and could find very few patents I was interested in. I soon learned that a true patent search would have to be conducted at the Patent Office.

At this time * went on strike. Assuming that it would take at least 2 or 3 weeks to be settled, I quickly decided to head for DC. * and I flew to Washington. I spent a week at the Patent Office but soon found most of my ideas had been patented 10 to 40 years previously. I also did a trade-mark search which was in a building close by to see

if I could use the name *. (I have also done research at the Library of Congress).

I spent parts of several days searching and photocopying. U. S. patents were fairly easy to find but foreign patents were difficult to trace. After several days of this I told the Patent Office Director that I still did not know if I had a patentable idea. He asked if I had talked to the Patent Examiner who was over the classification I was interested in. *'s office was in another building and he seemed very interested in talking to an inventor doing his own patent search. I showed him my * and all the patents I had found that related to it. After talking to him for about 20 minutes he said that there was beginning to indeed be proof that his was not obvious, "Sometimes a thing is so obvious that it is unobvious." He also told me that 1/2 of all patents are worthless. He then asked if I would like to search his private files--a large room across the hall full of all the patents he needed for his investigations. They were more complete than those in the public search area and the foreign patents were right beside U.S. patents.

My patent attorney, * accepted all the information and photocopies I brought back from the Patent Office, as a complete search. He also used much of the language and description I supplied him. My first patent was granted *

and the one you referred to in your letter *. I wrote many letters to big * manufacturers and was always told, "We have our own staff to develop new ideas." After many negative responses I realized that was hopeless so concentrated on smaller companies. I visited with a man who was the head of such a company in *. He had been to trade-fairs in Europe. He knew about this * and understood the U.S. market. His main line was *, so I took his advice as impartial and also knowledgeable. I showed him the * that embodied my first patent, and he commented that he had an old one at home that was similar but *. Next I demonstrated my *. I explained that either of these could be made * and I assumed would follow * and "Rubic' Cube" on the market and would sell millions. He was not impressed with either of these. I think they could have been made in large quantities to sell for $* to $*. This gentleman did like the next model I showed him. I had incorporated both my patents into a deluxe version with a * which would have sold for somewhere between $* and $*. Even substituting less expensive * or using * would still have meant an $* to $* selling price. I figured I had about two chances of finding a manufacturer to make this model--(slim and none).

This man in * really took the wind out of my sails. I had already become a little discouraged after working with * for so many years. I figured I had about $* invested but

also a tremendous amount of time. In retrospect I gave up too soon. The hardest part was behind me.

Perhaps the president of a very large * company in * advised me best. He wrote me personally, whereas most answers from big companies came as form letters. In my second letter to him I explained that I had found a place here in Iowa to have the * extruded. I located a supplier of * in another state, had labels printed and was set up to make a few * myself. I sent him one I had made and he liked the design and workmanship. (Another man told me I had over-engineered it. He meant that it would sell better if I used an old piece of * and *). This company president was quite complimentary and offered suggestions on manufacture and marketing. But then he wrote, "If we had come up with this, (the patented feature I was still trying to sell him and others around the country) we would not have bothered with a patent. We would have flooded the country with * and the competition wouldn't have a chance."

I have not told what the competition has been doing. Some claim this is a centuries old *. I found the first patent was in *. I have in my collection every commercially made * I have heard of. * were on the market before or during my patent process. * are from the last * years, one all metal and one all plastic. The other is called *, and has metal, plastic, wood, and a *. It has

"Pat. Pend." on it as well as one other. Instead of a *, it has a *. This was evidently too "obvious" to the examiner because I did not find it among new patents. He must also have rejected the other * that had a patent pending, whose only improvement was *.

I have received letters from individuals from all around the country because of my patents. I traded * with several and have * that were hand-made. There are still many people who think they will automatically become rich if they are granted a patent. The last time I was in the Patent Office, which was about * years ago, I found * patents on * issued since mine. One was for *. I think they were trying to circumvent my first patent. I thought of this method and still have the drawings that show how to accomplish this. It is quite complicated compared to my patent which *. Another patent showed a special * to fit. Another had a battery-powered light built in so *. It also had a *. I will describe one more. It is a "Design Patent" that is identical to a model I made long before. I have * variations of this *. I also have * other working models of * that are very different from anything already patented, and each other. I am sure I could get at least * more patents, but what's the use?

I added my own thoughts in describing some of these patents. I am being a little facetious but they are all

even more worthless than my own. Of all the twenty * patents I have seen, I don't know of a single one that was manufactured.

I designed * for ease of operation and speed, and envisioned * to find *. At one time when I had been practicing and trying for *. I have a * that would take me * hours to *. Also, I made a * that would take me. The commercial * I have seen are either *, *, or *. All similar * require the same procedure. There are no short-cuts.

Some have said they were tempted to see how far they could * this *. Another said he wanted to use a * on it.

A foreman at * wanted to know if I was mad at the whole world. A professor of * at U.N.I. lost most of his sleep one night before he * it. Because of this type of frustration my wife told me, "You're not going to make a * nobody can *!" This is what led directly to my first patent with "quick *" means, and also * instructions.

What caused me to invent my second *? I had worked with this thing for months and racked my brain and couldn't come up with a new idea. So one morning as I awoke, I remembered what I was just dreaming. It was about being very frustrated because I couldn't develop a new and different *, so I grabbed one I had made and *. I told myself, "There, that's different!" This evolved to the *,

and finally to the one with * that I named *, which received the patent.

I thought this account would fit on a couple pages, but it didn't. You may not be interested in the whole story, but after I got started I decided to make a more complete record. Someday my grandchildren or great-grandchildren may be interested in what happened.

I am enclosing a *. I sold about * for a * apiece and gave many more away. I found that a molded plastic * would be quite expensive so I never did complete that part.

I have mentioned possible * invested in *. But several thousand of that was for parts, trips, etc. I decided it would not be wise to put several thousand dollars more into a *. My wife did not mind the expense, even encouraged me, because it probably kept me from even greater mischief.

Am also enclosing a photocopy of my first patent taken from the "Official Gazette," and one of my second patent as it appeared in the Patent Office files.

You are working on a graduate degree. Do you intend to use the responses to the survey and other information you get in your thesis? You may use anything I have written.

Good luck with your patent.

P.S. I hadn't typed for several years so made a lot of mistakes. I am sending photocopies because the original has so many cover-ups.

****

Your Nov. 24th letter asks for information about my patent, and the following is a short report of a simple procedure.

*, the company with whom I was associated, were * and manufacturers of *. When * became so popular, we added a series to our * line. * receive * and as * is so * there is heavy * on the *.

My patent came about due to the need of a new process of * and * that would hold up under the heavy *. We used no outside advise, all models were made in our * department and all testing was done in our own plant.

We did not attempt to sell our idea, as the patent was to protect us from competition. I hope this will be of some small help to you and I wish you success in your undertaking.

****

It seems like a good idea. I wish you success.

****

Regarding the patents, I started applying for patents in *. I was successful in designing, testing, patenting the World's 1st * or a better name is * that would * up to

* in three to five minutes that retailed for $*. When connected to a * that had my patent attachment on it, that retailed for $*. I also had complete * made at *. I sold over units with * and *.

No one was making equipment to * it that fast. If it was * by hand it would keep * men busy at hard work *. So you can see the necessity of something better that drove me to spend a great deal of time and money on it.

Regarding my *, I recently have a large manufacturer that has agreed on a price. I have the following * patents for sale.

****

Your form sent to learn experience I have had with a patent application is enclosed. Since the form is really not applicable to my particular experience I am including this letter to explain my special efforts and successes.

Attached is a current * I use in the mail approach to sales. It has created a world wide response, however, to date sales have been with in the United States to specially interested people.

Currently I am in touch with several large corporations considering the marketing of this product. The problem is that the * is so different than the products on the market such as * and *. These * currently used in all * have never been accurate but come as close to

accuracy as the * manufactures have been able to come up with.

After spending a lot of money and time researching the problems existing with the * I came up with a dream one morning as to what the problems were. I hacked out a crude model, tested it, and found I was on the right track. But it would take a lot of expensive help to make it work for the entire * business.

Next I contacted an *, told him what needed to be done and asked if he could put it together. After I picked my self off the floor at the mention of the costs I wrote him out a check and they went to work on it. They did a perfect job of the *, I have never had to service or repair one in any way and the * is accurate to the *. I do not believe any company has a product that will * both * or *.

The * uses * based on the establishment of a *. The operator can *. If you have ever worked at * you already know what a success this is. As a by-product of the * development it cuts down on the * into the environment which is becoming a problem and the state of California has a bill in the government to limit the *.

The * has been developed out of personal funds. I am a * and have been an * and a * for over * years. This should satisfy the credibility of my efforts in the development and testing of *.

CIRRAS of Iowa State University directed me to the company that has assembled *. I have visited with most of the state agencies who help inventors in the marketing of a new product. They have asked for and I have furnished the so called Business Plan with no results. Seems they wanted to help me obtain money to finance the design, testing, and the development of a business to produce *.

I do not need this, I believe, because * is already in stock as a finished product. What I do need it help in the finding of an established business to market the product on a world wide basis. It is a desperately needed product.

If you can be of any help to me in finding marketing it would be greatly appreciated. That is why I have contacted the Department of Industrial Technology in the past and so far there has not been any positive action. Demonstrations are available to interested persons who can be of such help.

I hope that all of this will aid you in your search of the patent processes and wish you much success.

****

I have answered your questions the best of my ability.

We have * different products that we build, assemble and market.

I've been through a lot, beginning with an idea, building prototypes, models, etc. Looking for money,

looking for outside vendors that do quality work and on time, marketing, selling, etc.

We are now working on a new product that I can't talk too much about--but has to do with *.

The biggest problem I've had with any product and getting it going is money!

The problem I have is the total banking system in this state is geared to farming and doesn't understand manufacturing.

If you look at any state funding such as grants or low interest loans, etc., all the state wants to know is if you are going to build a new building and employ 100 people.

They also look at large out-of-state companies to move into the state to create jobs. Instead, they should be looking at supporting small Iowa companies toward manufacturing to create new jobs.

With all the state lottery money they should set up a system of low interest loans to Iowa companies with good workable ideas.

I know of a couple of firms that moved out of state for help.

I hope I've been some help to you, Diane!

If there is anything else that I can help you with give me a call or drop me a line.

****

This * was built as a "fun" project with little of any commercial applications. The * was used successfully in a * but it provided too much information and pointed out the * manufacturers inconsistencies. It was not a popular machine in the industry!

****

* got the patent on *. * died [date] so he didn't get to do much with it. * had installed one on * as I had * and it was hard for me to *. It was a real help for me.

* hired a patent lawyer from * to work with him for the patent. His fee was $1,000.

* had the * to make the *. I wish I could answer your questions but I can't.

****

I am sorry to inform you that * has passed away and I am unable to answer your questions.

However as a bystander my advice would be--after the invention and the patent--to get a very good promoter, someone that really knows about marketing.

****

This was written before Science knew about "dyslexia" but it has some interesting information on it.

****

Your letter of Nov. 14 was forwarded to me here in * where I have resided for the last * years. I am sending

one of your forms which will fit my mode of operation. My first patent, in *, covered a * for the *. I believe it is still operating at *. Another of my systems is still running, I believe, in *. A newer version was in.

The patents you referred to are all for *.

As you can see, my inventions were made to fill a need for faster, more accurate, more efficient, more dependable and easier to use systems. In short, they all came about because of a need. Invention is just a first step. The big job is to convince someone that it would be to his advantage to use it and to put down hard cash to back up his belief.

Most of my inventions came about because I could convince someone that I knew how to solve his problem better than someone else could. Then I had to prove it.

No one in Iowa was interested in promoting inventions except to sell you a list of possible prospects if you wanted it.

I hope this helps you and I hope it is not too late.

****

I received your letter of November 23 inquiring or requesting that perhaps I had experience in procuring patents that may be of benefit to someone else and would I share my knowledge with you, your association, or your school.

In the course of my inventions I have not yet marketed any as industrial products or accessories. Inventions, new, have a way of needing other inventions to support them for manufacture and it takes many years to create a cluster of inventions to make one product. This necessity takes much research and legal expenses of a high nature and usually bankrupts the inventor. Corporations do not solicit the patented help of inventors since they can buy a small manufacturing company cheaper than they can pay a royalty on patented inventions.

I have been involved in research in the past and will resume my activities in a year or so.

Due to legal and technical confidentialities involved both in research and in business I feel that it is unwise for me to join in any research or business disclosures unless I would be in business and then I would have to abide by any attorneys recommendations concerning such an action.

I hope you will understand my situation regarding research and business and I hope that you will have luck with your research on this matter.

I will close at this time.

****

Sorry I couldn't return it quickly, but I am a professional *, and I have had clients *. I am trying to

get things organized so I can spend all my time on the products I have invented and keep up with the orders. It's great!!

****

Please give this letter and material to whom you think might be appropriate.

Triple I stands for Invention, Innovation & Ideas. We are a not for profit association of about 140 members. We have a retired patent attorney and meet at Mary Crest College monthly.

Triple I is a member of the St. Louis Inventors Association, the umbrella group for all the inventors associations.

Our goal is to establish an assembly line for ideas to take all the good ones to the market place. Of this endeavor, Western Illinois University has been invaluable to our Illinois members. Frankly, we have not been able to do the same for our Iowa members. Hope you can tell us what we aren't doing right and how * can work better with our state institutions.

****

I'm sorry it took so long to get your survey sent back to you. I filled it out right away but when I started to write a little extra I got carried away.

Since you are in graduate school and have applied for a patent, I assume you will be using your experiences and other information you obtain in your thesis. I have more material if you are interested, including the patent examiner's rejection, which I would photocopy if you want to see it.

To explain this letterhead. Most had * but I must have used them all, writing to manufacturers. I designed and drew it first on two-foot long cardboard. Then it was photographically reduced in size for the letterhead, and still further for the * labels.

Hoping to hear from you.

****

I received your wonderfully sweet and innocent letter and form packet this morning. It seems likely that few successful or unsuccessful inventors are likely going to be able to fit their experiences into your form.

You are very possibly far enough along in your education process to note that many times a given test or questionnaire has some value loading by the person who wrote it. The famous Minnesota Personality Test was written in the 1920's or 1930's and is very amusing in this respect.

One: I have had * prototypes built for the last * years.

Two: I have gotten most of the $* spend in the past * years from my personal income and a small portion from friends. My work is not * or * or "hot" in any other sense, so the resources in your list have been less than worthless to me.

Three: You have no category for "technical excellence" for its own sake. All your categories assume economic motivation, and some seem a bit desperate. Imagine someone who saw an exploded * once. Two people are standing amidst the wreckage looking at *.

The rest of my experiences fit no better.

I am a self taught *. I am presently the foremost expert in *. I have been unlucky enough to have gotten almost the entire patent position in this technology. At least * [people] in North America have built at least * separate devices. It is likely that $1,000,000 at least has gone into research of this technology in the past * years. It is likely much more would have been spent if I did not so completely dominate the patent situation.

Typically, someone discovers the principle, builds a *, IS ASTOUNDED, and finds that I have gotten there first. One guy in * got a terribly poor quality patent and pissed away two years and a whole lot of money, and was smart enough to quit.

I have become a competent technical writer, a competent technical illustrator (not a good speller), and a very competent patent attorney, all these things without any credentials, of course.

And honestly Diane, I think your thesis is very likely to prove whatever you presently imagine is true about the creative process. (It might open your eyes a bit to read any biography of Charles Goodyear).

I have gotten nothing but trash from the various motivation tape agencies of Iowa. It would be sweet if you could somehow get my name removed from these lists. I get a lot of mail for seminars to pump me up so that I can be successful.

Oh Yes Diane--"Inventor" is truly a dirty word. If you go around to some company to talk and send in a card describing yourself as an "inventor," you are doomed.

Right at one person in each thousand makes money from a patent. You had best be very, very sure what you are doing is worth the hassle.

I am not interested in the results of your study, but would likely find some amusement reading the finished thesis, itself.

****

a. no b. yes We could really badly use someone who could set us up to finance and mass market our idea! If I

wanted--I've had a contact in China who wanted to do this but I've hoped America (Iowa) companies would help. It seems that American companies are happy to sit back and wait for the patent to expire before they want to develop the idea. No wonder Japan is ahead of us in some ways! There is too much government red tape to help us--too complex and costly. Banks don't want to loan money on a pretty much unproved product. And have you ever priced marketing? Wow! With proper marketing, financing, etc., we could probably take over a lot of the * sales by offering the * three * for the price of two that they can use to *. Or we can keep targeting the * to make their lives easier and safer.

It took * years, $* to get our patent. We had to fight everyone, every step of the way to get the patent. A simple * and its been sort of copied in a different way and referenced to another patent already. I have met and have sold many other inventors products in our booth but those inventors are also experiencing the same problems.

It is a real, real shame that America is coming up second to Japan. But after dealing with this patent has really showed up how poorly American companies think of the American dreams. And the year we got our patent was the first year more U.S. Patents were issued to foreigners than Americans!

Did you know Iowa now has a patent library? It's new! In Des Moines.

Funny, but we spent * grand on a patent. It's going to cost more than that to qualify for financial help! Then we only need about $10,000 to get going on manufacturing with a local Des Moines, IA company who agreed to make them for us as samples to sell to distributors. Yet as independent inventors we do not qualify for the money until we come up with much more $ than that to get into a program to help promote our idea.

We went to selling a couple * a day to selling a dozen or more a weekend, and that was doing it totally alone. We have <u>one store</u> in Des Moines selling them at nearly twice our price and doing well! But yet we can't get financing or afford marketing! SBDC and development centers are better at discouraging inventors than helping them!! Iowa Economic thing is too expensive and to hard to get help from. Even Governor Brandstad just sent us tons of rules, regulations, conditions, etc. that was more overwhelming than the 4 year patent process and worthless to us!

We have tried every line of help we can. You should start on each step. Investigate each step, and we would be very interested in your findings. Too bad the Des Moines newspaper has ignored a good thorough investigation (TV

too) into the problems inventors have. But I guess it's a small subscriber story.

Little products, tho they can (with proper financing, marketing, and others lucky breaks) become jobs and much money for the state and nation are too little to think of. But doesn't Japan companies encourage new ideas from their people, manufacture and try marketing those products? They let the markets decide what is a good product. Those same companies are willing to take a little risk to see if it makes a yen. So why does American companies refusing the same chances to their citizens ideas. Does the government have to step in. If they do, how much?

Inventors are a small, very small, part of our country! So it's been a minority!

Inventions, inventors and their products are being lost!! Diane, if you get a patent, good luck! Only 10% of the people are able to get them. But only 5% of those patents get marketing needed to bring those products to the market and consumers!

We have had small companies say our idea is too big for them and large companies say they are to big to handle our small product.

Bottom line is--* and I have come up with many other ideas on products that are useful and work and are needed. Buy why spend years of time, thousands of dollars for even

trying for a patent when most likely no one cares enough to manufacture and market it for you within the 17 years the patent is protected.

No, I don't think I want to do it again! I would rather make the product myself, use it myself, and say screw the companies that only will refuse our idea for their gain anyhow. Besides, it's cheaper that way. It's easier to invent or hand manufacture things then to get help getting the patent or it manufactured or marketed.

By the way, if your doing research, call the Iowa Attorney General's office (*) and ask for the person covering American Patent Research and Development Center (also known as "The Invention Center" and many other names). Ask them for a list of filing people. Many Iowan's (and nearly us) have had ideas but lost the chance to get their patents. They have an "open file" thing that might help your research.

I have lots of documentation on happy customers, letters from major companies wanting our product, and piles of companies not wanting to manufacture our product. Attorney General contacts, inventor contacts, new products that are sellable and not sellable (for reasons we know from what we learned by experience). We can't fund or market a *. Fought every inch of the way for a patent that isn't going anywhere even the people seem to love it (from

our responses). So what is wrong? Many, many products that have been good money makers were American inventions. The Japanese were able to use them years later to come up with the products that we buy as consumers!

I know I'm getting carried away some. But all I'm saying is true and you or me maybe can't change it. Unless you and I continue to work very hard for it.

I spent four years on it. How long are you in college and set to study this? Do you need news service agencies addresses or phone numbers? Do you need inventors addresses and phone numbers? Ones who lost their ideas? Ones who spent thousands and lost their ideas and waited?

If your school offers courses in journalism, etc. this story and others we can provide need to be researched and evaluated and told. I picked this * to patent and try to develop because it's simple and thought it would be: (1) easy to make, (2) easy to sell, (3) and would prove the problems I will face if I tried to do the same with any of the many, many ideas my family has come up with. Don't say people are not inventors. Anyone can hate doing something or have problems with something. Most put up with it, some develop ideas to get around the problem, few try to patent and manufacture and market the idea. This simple idea is very complex. Nobody jumps at a better mouse trap. Except maybe Japan.

The "American Patent Research and Development" company is afraid to accept lots of money to wait until the pending filing (and low money) is expired and later produce the products. American companies are not encouraged to promote ideas or products like Japan so they don't, and wait 17 years or so for companies to make them like the foreigners do and mass market the items and take over the market with cheap prices.

We could test market your idea! We have a company and everything needed but your booth space, motel, gas, and meals.

Maybe some students would like study our simple *! An idea simple enough--but different enough to get a U.S. Patent. Nearly 0% of ideas don't!

Diane there are so many ideas ripped off people, so many people that want your money (idea) etc., that if you make a dime off your idea you are lucky. Most of these people are working within the law (barely) but are getting our American ideas and dreams.

Besides the regular planning, luck, costs. It's a nightmare. In the meantime your idea sits waiting to be discovered. So do you try to finance $10,000 to buy a few thousand to send to distributors as samples to look at? Or spend $100,000 for TV ads and all?

But you're a Graduate Student at a very respected college in my experiences. Our simple idea (patented) is just a few steps and a couple years ahead of your idea it sounds like.

We are stuck on the last step to get our idea marketed correctly, financed correctly and adequately to make it. Of course, we would maybe like to make money off our idea. But what is the market when * million * are out there and maybe * million of them need *? Could three * for the price of * and colors maybe catch one half the market with a nice colorful TV ad and distributor marketing?

Diane, I would very much be willing to provide stories, documentation and anything you want or need to look into patents!

We can also show you some of the other "newly patented" or "patent pending" products we were selling. See, we specialize in that kind of product because to do a booth anywhere in nine Midwest states and expect to not find stiff competition--we had to develop our unique product line. Mostly new inventions and mostly through the inventor himself. So we could probably help you a lot in whatever your doing.

Diane, our * was a test. Really! My [relatives] have come up with ideas and little things to do things. We are handy around home and on the job type people when we

thought about trying to get a patent and learn the patent process.

Want research matter? No problem! Where do you want to start and what do you need to do it your way. You can use as much as or as little as you like.

I would like to read it after it is turned in so we can see what it come out like if it is okay with you. In the meantime I should stop writing and get this to the post office.

****