

## AN ANALYTICAL STUDY OF ENTREPRENEURIAL SUCCESS FACTORS IN UTTAR PRADESH

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### ABSTRACT

*In India, small firms contribute considerably to economic growth and employ a very large number of people, second only to agriculture. The concentrations of these firms are mostly in the urban areas while rural areas have failed to seize the opportunities unleashed by economic reforms. Different models are being attempted by various government and private agencies to tap the potential of human sources as an engine of growth. However, little is known about the characteristics of rural leather entrepreneurs who take up entrepreneurship mostly because they do not have a better opportunity and only incidentally due to their interest.*

*This paper investigates what determines entrepreneurial success by studying the characteristics of unorganized rural leather entrepreneurs of Uttar Pradesh in India. A questionnaire was constructed to collect data on various psychological factors from existing unorganized rural leather entrepreneurs of Uttar Pradesh (UP). We related these factors and questions to performance measured by log sales of the Leather entrepreneurs. A significant degree of performance variation can be explained by psychological characteristics, in particular, self efficacy, achievement motivation and average psychological aptitude for entrepreneurs in Uttar Pradesh.*

*Performance variation of UP's entrepreneurs is explained by age and prior experience in borrowing in addition to the psychological characteristic of achievement motivation. We identify specific questions as well and find that performance is significantly related to the questions relating to self efficacy and locus of control. Finally, we employ these findings to build a model for the selection strategy of Leather entrepreneurs.*

*Key words: Leather entrepreneurs, entrepreneurial success factors, psychological characteristics, Uttar Pradesh*

### 1.0 INTRODUCTION

Unemployment and professional redundancy have been two major problems in Uttar Pradesh for several decades now. Thousands of young people, armed with all kind of degrees and diplomas, get pushed into the job market every year. Even among those who manage to find a job, several remain badly under-employed, doing something, which otherwise they might not have preferred to do in the first place.

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The unemployment problem also has its links to the phenomenon of downsizing or what the ‘reformists’ prefer to call — ‘right-sizing’. Over the last few years, almost all the big companies have been retrenching people as a means to cut costs and strengthen their bottom lines. With more people going out of the job than coming in, today we can find an entire brigade of qualified mid-career professionals sitting redundant, waiting for a suitable opening and wondering what to do next?

The question is — whether there can be any practical solution to this longstanding and ever growing problem of unemployment? A possible answer could be suggested in strategies of self-employment and development of entrepreneurial culture in the state. Developing entrepreneurship as a culture is essential because it is not something which could be adopted easily by everybody. It is a career, which not only requires a specific kind of aptitude, but also a different kind of mindset. The question is that can these people, who have been out of job and likely to be running low on money though high on morals, dream to embrace successfully something as challenging as entrepreneurship?

What is entrepreneurship? Who are entrepreneurs? How are they different from non-entrepreneurs? Is entrepreneurship just another career option? Drawing from research, people choose entrepreneurial careers because of the perceived greater economic and psychological rewards than regular employment. The definition of an entrepreneur has evolved in last three centuries, from someone who bears risk by buying at a low price and selling at a higher price; to the creation of new enterprises of which the entrepreneur is the founder (Financing Micro enterprises, Theory and Practice) Considerable effort has gone into understanding the psychological and sociological wellsprings of entrepreneurship; and some common characteristics like the need for achievement, locus of control, orientation toward intuitive rather than sensate thinking, and risk-taking propensity of entrepreneurs have been suggested.

Entrepreneurship is nothing but an enlarged/magnified version of self-employment capabilities. Both require similar fundamentals for success. Interestingly, self-employment can serve as an ideal launch pad for becoming a full-fledged entrepreneur. To begin with the definitions, while ‘self-employment’ is largely about earning a living by being on one’s own,

‘entrepreneurship’ is about working to make a DREAM come true . . .some day. For example, being a teacher and taking private tuitions is self-employment, while aspiring to build an educational institute is entrepreneurship.

The development of entrepreneurship is not a pretty task. The odds are daunting, the road long and difficult. Therefore with an intention to understand what is actually required for the development of entrepreneurial culture in Uttar Pradesh, this research project has been identified.

For all the burgeoning literature on entrepreneurship, establishing precisely what entrepreneurship is and why it matters is something of a Holy Grail. The dictionary says, ‘*Establishing and running a commercial venture to create wealth*’ is entrepreneurship. This seems to be a really simple and precise definition. However, the question is that if entrepreneurship can be explained and understood in such words, then why successful entrepreneurship is so scarce? If it is something so simple then why does so many entrepreneurial ventures fail within few years of their inception?

It is felt that entrepreneurial ventures fail in such great numbers because we have failed to understand entrepreneurship in its true sense and spirit. It is really unfortunate that traditionally entrepreneurship has always been talked of in reference to commercial ventures and as a distant synonym of self-employment. But this happens to be just one aspect of the subject.

The era of globalization, liberalization and privatization has given a fresh dynamism to the engine of economic growth in India. It has opened up opportunities as well as challenges. Job opportunities are getting influenced with the entry of MNCs in Indian market and also due to rapid strides in technology. Leather entrepreneurs are one of the largest foreign exchange earners of our country, who unfailingly give a boost to the national economy and per capita income.

Empirical literature analyses the characteristics of unorganized rural leather entrepreneurs, which found direct relationships between the need for achievement, locus of control and risk taking propensity with success in most cases. Again, the entrepreneurial characteristics

required to launch a business successfully are often not those required for its growth and even more frequently not those required to manage it once it grows to considerable size. In other words, the role of the entrepreneur needs to change with the business cycle as it develops and grows.

Keeping in mind these constraints, the objective of this paper is to identify and, eventually, provide a model for selection of rural leather entrepreneurs for the different rural leather entrepreneurship based businesses in Uttar Pradesh. In particular, the existing rural leather entrepreneurs have been analyzed for their psychometric characteristics, thus laying the foundation to building a model for their selection strategy. The database of sales performance and questionnaires proved to be the key to understanding the psychometric traits of these entrepreneurs. In reaching the above-mentioned objectives, the structure of this paper is as follows.

Section II introduces the leather entrepreneurship, its scope and the status of the same as on the day. Section III describes the details of data; sample construction, construction of variables, questionnaire and sample description. Section IV describes the methodology and results obtained. A model is recommended to rural leather entrepreneurs of Uttar Pradesh in section V. Lastly section VI concludes the paper.

## **II.0 LEATHER ENTREPRENEURSHIP**

Leather was one of the first manufactured materials, and the Leather Technologist can claim to be a member of an ancient profession. Leather has long outgrown in its practical purpose and today is regarded more as a luxury than a necessity. The global industry is valued at about Rs.3964.4 billion (71.27 Billion Euro). Most of the producing countries are developing countries, yet China and Italy are the leading producing and exporting nations in the world with exports worth Rs. 886.16 billion (15.93 billion Euros) and Rs. 606.32 billion (10.901 billion Euros) respectively. The industry is buyer –driven, with producing countries manufacturing in line with specifications, guidelines and technical advice provided by the buyer countries. The leather industry occupies a prominent place in the Indian economy in view of its substantial export earnings, employment potential and growth.

The Indian leather industry, one the most vibrant sector of the country's economy, is well-structured and spans various segments, such as tanning and finishing, footwear and footwear components, leather garments, leather goods, including saddles and harness. Well recognized in the international market, the Indian leather goods constitute about 7 per cent of India's export earnings. Besides being a significant earner of foreign exchange, the leather industry generates employment, ensuring jobs for over 2.5 million people, with 75 per cent of the production from small and cottage sectors. India, with an output of Rs. 186.56 billion (3.354 billion Euros) and exports of Rs. 125.46 billion (2.225 billion Euros), is placed third, while developed markets such as the US are major consumers of leather products. It is now poised for a big leap to double its global share from the present 3%. The industry covers a vast spectrum of inputs, activities, skills and products i.e. livestock, hides and skins, tanning, leather products and exports.

The Indian Leather Industry is growing by leaps and bounds. One must be wondering why India is exporting so much of leather to western countries. Apparently because leatherwear still enjoys a great demand abroad and now-a-days even the domestic market is developing and consuming the offerings of this industry. The Indian market has been fragmented with about 2200 tanneries of which 2100 are small scale units and over 8000 leather product manufacturing units. The tanning industry is concentrated in three states viz. Tamil Nadu, West Bengal and Uttar Pradesh. Of the total number of tanneries in India, Tamil Nadu accounts for 52%, West Bengal 23% and Uttar Pradesh 12%. The other important states are Maharashtra, Andhra Pradesh and Punjab. Looking from the angle of scale of operations, the tanning industry largely exists in the small-scale sector with a share of 93% in the total number of tanneries in the organized sector.

Uttar Pradesh is one of the most important states in India holding sizeable population of live stock. Claiming a share of 22% Uttar Pradesh ranked 1<sup>st</sup> in case of Buffalo and 2<sup>nd</sup> in case of Cattle having a share of 12%. With regards to Goat and Sheep it has 4<sup>th</sup> and 7<sup>th</sup> position respectively. Thus, Uttar Pradesh has a very strong raw material base and all types of main raw material for leather industry are available. Major production centers and Number of leather and leather products industries in Uttar Pradesh are to the tune of approx. 11500 of which Kanpur and Agra are the two famous production centres in the world.

Kanpur is a prominent centre for leather processing. About 200 tanneries are located in Kanpur. Kanpur tanneries specialize in processing hides into heavy leather (Sole, harness and Industrial leather). This is the only centre in India where saddlery products are manufactured. Agra has been the biggest centre for shoe-manufacturing in the country.

Apart from these traditional centers for leather and leather products manufacturing in U.P., NOIDA has recently emerged as another major centre especially for leather footwear and leather garments. NOIDA provides very good infrastructural facilities and establishment of FDDI in NOIDA is expected to promote more footwear. Meerut is another centre for production of sports goods.

Leather entrepreneurs unfailingly give a boost to the national economy and per capita income. Leather industry provides more employment opportunities to the backward communities. Even so, the industry is facing innumerable problems in the functional areas due to the banning of slaughtering of animals in the name of sacrifice, and safeguarding the poor that has resulted in the closure of many units in Uttar Pradesh. The skins available in Uttar Pradesh are considered to be of the best quality in the world. The industry has expanded rapidly in different parts of the country; most of the units are in a state of decline as leather entrepreneurs are facing a lot of problems in the areas of production, processing, marketing, finance and personnel.

In any organization efficient management is inevitable. If there is a slight disorder, the whole system collapses gradually. It becomes difficult to rebuild it. The leather entrepreneurs are facing a number of problems both internally and externally. The new policies framed by the Government of India directly affect the functional areas of leather industry. In the name of holiness, some powers are trying to implement ban on slaughtering of animals totally and stringent pollution norms are being adopted by the State and Central Governments, which are directly affecting the growth and progress of leather industry. This reflects in the closure of some units and creating unemployment problems especially for semiliterate, illiterate and downtrodden communities.

## **II.1 LEATHER ENTREPRENEURSHIP & CHILD LABOUR**

The Leather Industry is Labour intensive and is concentrated in the small and cottage industry sectors. While leather shoes and uppers are concentrated in large scale units, the sandals and chappals are produced in the household and cottage sector. The processes in the footwear making include last making, pattern cutting, clicking, sewing Assembling and finishing. There is no gender selectivity in child labour. Adults earn wages that are only marginally higher than what the children earn. Irrespective of the experience, skill and family size and requirements the wage payment system remains insensitive and relatively inelastic. Children contribute 20 to 40 per cent of the family income. The labour in the leather industry is defined by the caste location. While market forces predominantly govern all other aspects of the industry, the labour is drawn exclusively from the most downtrodden section. As heads of 60 per cent of the households are engaged in leather work, the leather sector study establishes the incidence of child labour in leather flaying as an intergenerational phenomenon.

Children between 10 & 15 yrs. old are mainly employed in assembling shoes. Some 80% of the children work for contractors at home. Children work on soling (fixing upper portions of shoes to leather or rubber soles) with glue. Children in cramped poorly lit rooms suffer from continuous skin contact with industrial adhesives & breathing vapors from glues. The children working in the footwear industry are exposed to physical factors like poor illumination, noise & poor ventilation and chemicals like leather dust, benzene that is used as a solvent in glues and p-tert., Butyl phenols, which is used in neoprene adhesives. Thus most children suffer from respiratory problems, lung diseases and skin infections through constant exposure to glue and fumes. They are also exposed to risk of nasal cancer, neurotoxicity and adverse physical factors. In addition to the general hazards of child employment in leather industry, the specific hazards for single migrant child labour of slaughterhouses consist in their being exposed to all kinds of weather conditions, occupational Injuries and diseases, the detrimental impact of watching the slaughtering of cattle continuously and the lack of sanitary facilities which makes the children to suffer from psychological problems.

## **II.2 LEATHER ENTREPRENEURSHIP & WOMEN**

Women are employed in large numbers in Indian leather industry and are making important contribution to the national economy as well as to exports. Women are involved in footwear production in Athani (Karnataka), Rajasthan, Agra & Kanpur (UP) and Chennai, Ambur, Ranipet and Vaniambadi (Tamil Nadu). Their entry into productive work has helped considerably in improving their household situation. With the 'take off' of the footwear industry, especially in the last 20 years and the rapid rise of exports, women's employment has increased.

The leather industry has been designated as a hazardous industry under the Factory Act 1948, and has a mandatory requirement of formal approvals for expansion. It has been observed that formal units expand and set up illegal units, where the bulk of women workers, especially dalit women are found. Women are not documented as 'workers' on any official records. Therefore, they are not legally entitled to any compensations or benefits. These women are recruited through contractors and are engaged in all stages of the tanning process. Their tasks are time consuming, backbreaking and the most hazardous.

The studies -indicate that, prolonged contact with chemicals used in the leather industry leads to problems such as dermatitis, loss of hair on the head, conjunctivitis, nervous disorder, itching of skin and throat mucous membrane, chest pain, ulcer, breathing problems, asthma, bronchitis, fissure in fingers, toes, mouth and nose, frequent fever, headache and stomach upsets. Specific gynecological problems faced by women workers are: menstrual disorders; premature death, still births and prolapsed of the uterus.

## **III.0 DATA**

### **A. SAMPLE CONSTRUCTION**

A simple approach when trying to determine the various psychometric traits important for an entrepreneur would be to identify the traits established from previous studies, design a psychometric test and administer it to the selected sample. However, this would mean an implicit assumption that other factors of social and economic background are constant across

the observed samples. We selected 55 unorganized rural leather entrepreneurs for our sample from Kanpur and Agra in Uttar Pradesh. To track the performance of the rural leather entrepreneurs over a period of time we use sales figure. The same rural leather entrepreneurs were interviewed and administered a psychometric test to find the correlation, if any, that existed between performance and the psychometric traits of the rural leather entrepreneurs. I also tried to discover if a significant relationship can be found between performance and the psychological characteristics of rural leather entrepreneurs.

As discussed earlier, certain psychological characteristics indicative of entrepreneurs were objectively identified. Based on these characteristics and with the help of questionnaires already used for this context, variables are then constructed. From there, a questionnaire was formulated to measure these variables.

## **B. CONSTRUCTION OF VARIABLES**

The variables are constructed to measure the psychological characteristics of rural leather entrepreneurs important for their success. Earlier studies by other researchers list a number of characteristics; our attention is restricted to psychological traits, time preference, risk aversion, intelligence quotient and background.

### **1. Psychological traits**

#### *a) Achievement Motivation (AchM)*

The need for achievement is a distinct human motive which can be defined as a need for success or attainment of excellence. Individuals satisfy their needs through different means, and are driven to success for reasons both internal and external. McClelland asserted that while most people do not possess a strong achievement-based motivation, those who do, display consistent behaviour in setting goals. Achievement-motivated individuals are different from gamblers or risk takers. They set achievable goals which they can influence with their effort and ability. This results-driven approach is almost invariably present in the character make-up of all successful business people and entrepreneurs (Cassidy and Lynn 1989).

### *b) Locus of Control (LC)*

A person's perception of the source of his or her fate is termed as a locus of control, i.e. the degree to which people believe they are master of their own fate. Individuals who believe that they control what happens to them are 'Internals' or internally motivated and have an *Internal Locus of Control*. Those who believe that outside factors such as luck or chance controls their fate are 'Externals' or externally motivated and have an *External Locus of Control* (Robins 2003).

Empirical evidence (J. and Tewary 1979) shows that internals are more suited for jobs which require initiative and independence of action. People with high internal scores on Rotter's (I-E) (Rotter 1966) scale are more likely to be successful entrepreneurs. Internals believe that they personally are in control of their destiny and that luck and fate have only a modest influence on the outcome of events. For internals, personal destiny comes from within and therefore they tend to be self-reliant and independent.

### *c) Meta- Cognitive Activity (MC)*

Simply defined, meta-cognition is thinking about thinking (Jennifer A. Livingston, 1997). It refers to the higher order thinking that involves active control over the thinking processes involved in learning. It consists of two basic processes occurring simultaneously: monitoring our progress as we learn, and making changes and adapting our strategies if perceived that we are not doing so well (Winn and Snyder, 1998). It's about self-reflection, self-responsibility and initiative, as well as goal setting and time management. Activities such as planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task are meta-cognitive in nature. "Meta-cognitive skills include taking conscious control of learning, planning and selecting strategies, monitoring the progress of learning, correcting errors, analyzing the effectiveness of learning strategies and changing learning behaviors and strategies when necessary. " (Ridley *et al.* 1992) A successful entrepreneur should be a good learner with meta-cognitive skills.

### *d) Need for Dominance (ND)*

In society, the relative position of an individual is determined by structure of the society and the relative importance given to various occupations. Domination is the condition of having control or power over people or things. Like many other needs of humans, the need for dominance is a motive to acquire a dominating position in society. An entrepreneur controls his or her work and is perceived to have relatively more power over the events in their life than a salaried person. Also, people who don't want to be in subordinate position or don't want to take orders from anyone else tend to work for themselves. High need for dominance could be a key characteristic of an entrepreneur.

*e) Passion for Work (PW)*

An individual's passion for his or her work comes from self motivation to work more driving to achieve the goal. It creates an insatiable hunger for excellence. However, many people do not enjoy their work and do it to earn a livelihood, rather than out of interest. For entrepreneurs, being passionate about their work is not only important but crucial because it directly affects their business. They constantly need to discover new ways to sustain and expand their business, maintain their client base and look for new opportunities. If they are not enjoying the work they are doing, it may result in failure. Do rural leather entrepreneurs have passion for work and whether it affects their performance must be measured and analysed.

*f) Self- Efficacy (SE)*

Self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives (Bandura 1997). Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Entrepreneurs are perceived as having a high level of assurance in their capabilities and who approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook fosters intrinsic interest and deep engrossment in activities (Bandura 1997). They set themselves challenging goals and maintain strong commitment to them. When met with failure, they heighten and sustain their efforts and quickly recover their sense of efficacy after it. Also they attribute failure to insufficient effort

or lack of knowledge and skills which they think can be acquired. This approach produces personal accomplishments, reduces stress and lowers vulnerability to depression. We perceive that entrepreneurs should have self-efficacious attitude towards life.

## **2 Cognitive Reflection (Intelligence Quotient), Risk Aversion and Time Preference**

### *a) Intelligence Quotient (IQ)*

People with higher cognitive ability (or “IQ”) differ from those with lower cognitive ability in a variety of ways. Entrepreneurs as perceived should have high cognitive ability because it is suppose to influences judgment and decision-making ability. It is logical for us to select IQ as one of the personality traits of a successful entrepreneur.

### *b) Risk Aversion (RA)*

Entrepreneurship is historically associated with risk bearing and hence risk attitude is widely believed to affect the selection of individuals for entrepreneurial positions. The process of being an entrepreneur may increase the desire for higher levels of risk. We propose risk-aversion as one of our variables because an entrepreneur is required to take risky decisions in uncertain environments and hence more risk-averse individuals are less likely to become entrepreneurs. Like IQ, we have two variables RA1 and RA2 for risk-aversion.

### *c) Time Preference (TP)*

In addition to IQ and Risk Aversion, there is also a notion that entrepreneurs need to be more patient. When the time element is involved, they go thorough lot of consideration in taking decision. They devalue or “discount” future rewards less. Similar to IQ and RA, we have constructed TP1 and TP2 as the variables (Time preference) measured in the main survey.

## **C. QUESTIONNAIRE**

In this research, we have used questionnaire developed by Viral Acharya, Abhilasha Rajan and Antoinette Schoar; which attempts to measure the above mentioned variables. The whole questionnaire is divided into three parts. The first part consists of background classification

questions like age, education and business background of the rural leather entrepreneurs. The main questions in this section are about age, the level of education, social connections, general experience and knowledge of business (own or others), and knowledge of financial aspects of business. During data analysis they have further been grouped into Background and Business Background questions.

The second part is the main survey questionnaire which has been used to measure entrepreneurial characteristics. It comprises of 20 questions where the psychological characteristics are measured on several scales. In addition to the main questionnaire, respondents completed another set of questions to measure cognitive traits (IQ), Time Preference, and Risk Aversion.

#### **D. SAMPLE DESCRIPTION**

Table 1 present means and standard deviations for all the psychological variables of the entrepreneurs from UP. It also presents the means and standard deviations for the scores they obtained for IQ, age and average education. The two columns report summary statistics. The last row of the Table 1 contains the sample size.

We observe that rural leather entrepreneurs score high in meta-cognition and passion for work and low in locus of control for both the states. Further, their score is average in self-efficacy, average aptitudes and achievement motivation but the score in need for dominance is low. They score very poor in IQ.

**Table 1: Descriptive Statistics**

	UP	
	Mean	St. Dev
Locus of Control (LC)	2.16	2.10
Self Efficacy (SE)	3.22	1.64
Achievement motivation (AchM)	3.04	1.68
Meta Cognition (MC)	4.10	1.06
Passion for work (PW)	4.02	1.30
Need for dominance (ND)	2.42	3.25
Avg Apt (AA)	3.14	0.95
Sales	44017.74	86067.05
Age	28.79	6.55
SumIQ	2.96	1.60
Sample Size	55	

*Notes:*

*a. Each of the above variables was measured on an 11 point scale. (–5 to 5) and then transformed to 5 point scale. b. 5 denoting the extreme positive attribute while –5 the extreme negative. For example, +5 for locus of control would mean, the person has extremely internal, while –5 meaning exact opposite. Similarly, High belief of self- efficacy, high achievement motivation, high meta-cognition, passionate about work, high need for dominance would score +5. c. Average aptitude is the average of all the six aptitudes. d. Sum IQ is sum of IQ1 and IQ2. The total score is 8.*

Table 2 is the correlation matrix for psychometric characteristics. As we can see from the table, average aptitude is highly correlated with all the other variables, it shows significant correlations only with locus of control and self-efficacy. Locus of control and self-efficacy are significantly correlated. Meta-cognition activity and passion for work are correlated with a few variables, while locus of control and need for dominance don't show much correlation with other variables.

**Table 2: Correlation matrix**

LC	–									
SE	<b>0.43</b>	–								
AchM	<b>0.56</b>	<b>-0.34</b>	–							
MC	<b>0.53</b>	<b>-0.24</b>	<b>-0.07</b>	–						
PW	<b>0.43</b>	<b>-0.21</b>	<b>-0.06</b>	<b>-0.12</b>	–					
ND	<b>0.34</b>	<b>-0.24</b>	<b>-0.02</b>	<b>-0.03</b>	<b>-0.08</b>	–				
Sales	<b>0.33</b>	<b>-0.25</b>	<b>-0.05</b>	<b>-0.05</b>	<b>-0.10</b>	<b>-0.07</b>	–			
Avg Apt	<b>0.42</b>	<b>-0.25</b>	<b>-0.10</b>	<b>-0.10</b>	<b>-0.14</b>	<b>-0.11</b>	<b>-0.13</b>	–		
Log sales	<b>0.33</b>	<b>-0.25</b>	<b>-0.07</b>	<b>-0.10</b>	<b>-0.14</b>	<b>-0.10</b>		<b>-0.11</b>	–	

LC	–	<b>0.43</b>	<b>0.56</b>	<b>0.53</b>	<b>0.43</b>	<b>0.34</b>	<b>0.33</b>	<b>0.42</b>	<b>0.33</b>
SE		–	<b>-0.34</b>	<b>-0.24</b>		<b>-0.24</b>	<b>-0.25</b>	<b>-0.25</b>	<b>-0.25</b>

Notes: a. Product moment correlations are shown in Table 2. Correlations greater than an absolute 0.24 are shown in bold letters. b. The last two tables show separate significant results.

UP																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	–																			
2	0.04	–																		
3	0.07	0.13	–																	
4	0.38	0.02	0.18	–																
5	0.05	0.36	0.16	0.19	–															
6	0.11	0.15	0.06	0.05	0.19	–														
7	0.07	0.06	0.03	0.25	0.12	0.26	–													
8	0.16	0.08	0.16	0.28	0.31	0.26	0.14	–												
9	0.05	0.21	0.39	0.13	0.24	0.05	0.07	0.06	–											
10	0.09	0.21	0.17	0.19	0.15	0.14	0.14	0.01	0.03	–										
11	0.27	0.11	0.25	0.23	0.04	0.06	0.04	0.15	0.29	0.01	–									
12	0.10	0.13	0.11	0.22	0.41	0.19	0.08	0.13	0.01	0.10	0.14	–								
13	0.19	0.26	0.17	0.12	0.22	0.36	0.14	0.10	0.03	0.62	0.01	0.06	–							
14	0.36	0.19	0.02	0.34	0.27	0.10	0.20	0.23	0.31	0.15	0.42	0.02	0.17	–						
15	0.02	0.12	0.06	0.05	0.12	0.01	0.07	0.05	0.18	0.01	0.08	0.24	0.13	0.04	–					
16	0.04	0.17	0.02	0.22	0.09	0.05	0.06	0.15	0.02	0.07	0.00	0.27	0.03	0.06	0.57	–				
17	0.03	0.11	0.08	0.25	0.22	0.32	0.07	0.36	0.03	0.22	0.10	0.72	0.27	0.05	0.20	0.27	–			
18	0.19	0.09	0.22	0.44	0.33	0.07	0.23	0.41	0.07	0.02	0.29	0.27	0.00	0.14	0.02	0.04	0.17	–		
19	0.18	0.13	0.09	0.27	0.05	0.12	0.17	0.05	0.10	0.15	0.02	0.29	0.26	0.06	0.26	0.39	0.17	0.28	–	
20	0.27	0.13	0.00	0.48	0.10	0.14	0.06	0.32	0.24	0.08	0.06	0.28	0.13	0.37	0.05	0.29	0.25	0.24	0.16	–

It is expected that for entrepreneurs, self-efficacy (SE) and locus of control (LC) should be positively correlated. SE and LC don't show statistically significant correlation. A very striking feature can be observed here in case of SE is negatively correlated with all other variables except LC.

We also check the correlation for individual questions in the correlation matrix given in Table 2. In a separate analysis which is not reported here, we also check for correlation between questions of variables from other group of TP, RA, IQ but no significant correlation was found.

In Table 2, we found significant correlation between questions of SE and LC. Because of the high correlation of SE with LC, we can say that those who have strong belief in their ability would also think that fate has only a modest influence on whatever happens to them. And hence they would be more self-dependent and reliant and possibly be related to less incidents of failure.

In the next section, we write the methodology and results. We report for each state the variables which worked and then the individual questions having significant relation with the performance.

## **IV.0 WHAT MAKE ENTREPRENEURS?**

### **A. METHODOLOGY**

We want to find out what make successful entrepreneurs. In doing so, we have tried to find out how to select leather entrepreneurs who could be successful entrepreneurs. We have followed a strategy to identify statistically significant relationships between the selected variables by first finding the correlation between different variables and then we use a set of multiple regressions to find out relations between variables. We have already reported the correlation results in previous section. For the sake of simplicity, we have chosen log-linear (independent variable is linear) as the functional form for all of our regressions. The simple logarithm of sales data is the dependent variable for all estimated regressions.

We propose to estimate the following regression for each of the combinations.

$$Y_i = \alpha + \beta_{i1}X_{i1} + \beta_2X_{i2} + \dots + \beta_{in}X_{in} + E_i \dots \quad (1)$$

*Note:  $Y_i$  stands for log of sales,  $\alpha$  is the constant or intercept term,  $X_i$  represents the independent variables,  $\beta_i$  represents the slopes or the coefficients corresponding to each  $X_i$  and  $E_i$  is an error term.*

First we grouped each of the psychometric variables with aptitude variables and background variables. This gives us a set of combinations for each psychometric variable.

For example; with Achievement Motivation, one combination of variables is time preference, risk aversion and IQ. A second combination would be with time preference and risk aversion. Similarly, in another combination, there is background and business background. A single regression is also there to check the independent effect of achievement motivation on sales performance. This strategy gives a large pool set of regression results.

From the above set of regressions we were able to identify variables which have significant relation with performance. We performed another set of regressions where questions have been taken as independent variable while the dependent variable remained the same as in the log linear model.

Finally and most importantly interest is in developing a model based on which they can orient their selection strategy.

## **B. RESULTS**

We have presented the results each for identification of importance of variables and questions.

Table 3 shows our results from the estimation of equation (1) for different sets of combination of variables as discussed earlier. We find that one psychometric variable is statistically significant. We now discuss the results of regression analysis in greater detail. From each set of regressions, we report only those variables for which coefficients are significant in each combination in that set.

In Table 3, only one psychological factor, achievement motivation, is statistically significant. ‘Other knowledge of borrowing’ and age are the other two factors from background and business background group of variables which seem to drive sales performance in Uttar Pradesh.

**Table 3: Significant Psychometric Variables**

REGRESSION COMBINATIONS	UTTAR PRADESH
	Ach M
REGRESSION 1	- 0.322 (0.035)
REGRESSION 2	- 0.306 (0.017)
REGRESSION 3	- 0.307 (0.049)
REGRESSION 4	- 0.310 (0.049)
REGRESSION 5	- 0.346 (0.016)
REGRESSION 6	- 0.284 (0.058)

Notes:

a. Each entry in this table corresponds to a different regression. b. Column 1 shows various combinations of the independent variables. The dependent variable is the same for all regressions. For example Reg1 for the entire column has only one independent variable which is psychometric variable in that column. Reg2 includes TP1, RA1 and Sum IQ with the psychometric trait that column. Similarly other combinations are depicted.

Reg1	Reg2	Reg3	Reg4	Reg5	Reg6
Psychometric characteristics	Psychometric characteristics + TP1, RA1, SumIQ	Psychometric characteristics + TP2, RA2, SumIQ	Psychometric characteristics + TP2, RA2, IQ1, IQ2	Psychometric characteristics + Background	Psychometric characteristics + Business background + Background

d. Background and business background contains other variables of those groups. e. The first number in each cell is the estimated coefficient of the regression, the second number is the estimated p value (in round brackets) and the third number is the estimated R2 (in squared brackets).

The Table 3 presents result for achievement motivation. When it is regressed individually, the significance level is at 2.6% and subsequently decreases to 3.7%, 4.9%, 4.9% and 5.8% with the addition of effects of TP1, RA1, Sum IQ; TP2, RA2, Sum IQ; TP2, RA2, IQ1, IQ2

and Business Background. However inclusion of background increases the significance level of achievement motivation coefficient to 1.6%.

Table 4 reports the result for variables Age and Other Knowledge of borrowing of rural leather entrepreneurs in Uttar Pradesh. The first column presents the results of all the sets of regression of psychological traits with background in which age coefficient is significant. It can be observed that age is significant in each of these regressions at below 5.7%. Similarly the last two columns show the regression results of all the psychological traits when background and business background are taken together. The results indicate that OK\*Borrowing is significant for AA, PW, LC, SE and MC at 7.5%, 3.1%, 4.6%, 3.1% and 3.9% while Age is significant for PW, LC, SE and MC at 5.9%, 9%, 8.4% and 6.9% respectively.

**Table 4: Other Significant Variables**

	Background	Background and Business Background	
	Age	Age	OK*Borrow
Avg Apt	0.086 (0.055) [0.017]	0.045 (0.422)*	1.670 (0.075) [0.140]
ND	0.083 (0.057) [-0.064]	0.060 (0.318)*	1.433 (0.199)* [0.079]
PW	0.092 (0.032) [0.113]	0.087 (0.059)	1.600 (0.031) [0.228]
Ach M	0.085 (0.046) [0.123]	0.081 (0.090)	1.044 (0.202)* [0.153]
LC	0.086 (0.057) [0.006]	0.087 (0.084)	1.611 (0.046) [0.077]
SE	0.086 (0.056) [0.009]	0.077 (0.118)*	1.721 (0.031) [0.115]
MC	0.086 (0.052) [0.042]	0.090 (0.069)	1.632 (0.039) [0.114]

*Notes:*

*a. Similar to Table 4, each entry corresponds to different regressions. First column shows regression of background variables with each of the psychometric variable. b. Each entry in the last two columns depicts result of a single regression. c. The first number in each cell is the estimated coefficient of the regression, the second number is the estimated p value (in round brackets) and the third number is the estimated  $R^2$  (in squared brackets). d. Significant p values are shown in bold.*

One important observation is that none of the variables from the group of time preference, risk aversion and cognitive traits are significant. These results at first glance may seem to be contrary to the conventional wisdom that an entrepreneur is required to make risky decisions in an uncertain environment and hence only those persons who are able to bear higher risks should perform well. However, we have measured risk taking propensity of established rural leather entrepreneurs or at least who are experienced for sometime which might be different from that of a new or aspiring leather entrepreneur (Brockhaus 1987).

Also, IQ and time preference are generally perceived to be two important drivers of entrepreneur performance. Surprisingly, our results say that rural leather entrepreneurs need not be very high on IQ and being patient is not an important factor for their performance.

A tentative explanation for these results is as follows: most rural leather entrepreneurs are originally from rural background with poor education and who have opted to become entrepreneurs not because it was their dream, but because they lacked other opportunities of regular employment in a salaried job.

It seems intuitively appealing for us to expect rural leather entrepreneurs to possess all the typical characteristics expected from entrepreneurs but they are not entrepreneurs in the accepted sense. Previous studies have considered successful entrepreneurs as their subject based on which these characteristics have been identified. Further these studies are mostly representative of the characteristics of those entrepreneurs who despite of having other options of employment, opt for own enterprise because of a strong wish to follow their passion. On the other hand, our study is focused on Uttar Pradesh, the underdeveloped state of India where literacy and employment are major problems. They score poorly on IQ which could be one reason why no significant relationship between risk aversion and time preference with performance was found for them (Frederick 2005). They have Average

villages populations 26171.87, Education average: 0.84. (2 is for M.A and -1 for study till class X)

Thus, of the wide variety of factors selected for this study, only few are identified as statistically significant and relevant characteristics of successful rural leather entrepreneurs. The identification of such factors provides us with a platform for making selection criteria for them.

We proceed in our study to find out which questions in the survey seem to have a significant relationship with sales performance of rural leather entrepreneurs.

Table 5 presents the results of the regressions in similar fashion as we did for psychometric traits. We estimated equation (1) having independent variables as individual questions and dependent variables as the log of sales separately.

The results found reinforce the results obtained in trait identification. As expected, the important questions found for the two states are not the same. Five questions have been found significant from the psychometric group even though it has only one psychometric trait, achievement motivation, as an important factor for performance.

**Table 5: Significant Questions identified**

REGRESSION	UTTAR PRADESH			
	ND	LOC	SE	Ach M
LOC + SE		0.272 (0.005)	0.181 (0.009)	- 0.702 (0.002)
LOC	0.086 (0.054)		0.156 (0.023)	
SE	0.077 (0.081)	0.156 (0.023)		0.224 (0.055)
Ach M + LOC	0.172 (0.0128)			
ND + Ach M + LOC		0.351 (0.014)	0.129 (0.084)	- 0.479 (0.033)
<b>REGRESSION Std. Error</b>		0.175 (0.078)		-0.573 (0.0086)

Notes:

*a. Similar to table 5, each entry corresponds to a different regression. b. The first number in each cell is the estimated coefficient of the regression, the second number is the estimated p value (in round brackets) and the third number is the estimated R2 (in squared brackets). c. Significant p values are shown in bold.*

Surprisingly, out of five identified as significant regressions, it appears that though SE was not identified as an important trait of the rural leather entrepreneurs, it does in fact play a role in performance as well. LC shows positive correlation with SE and finally one of the important questions comes out from LC.

## V.0 RECOMMENDATION

Finally we come back to the equation (1) to suggest a model based on the analysis so far. Based on the results, we suggest that the level of sales performance is a function of the different variables and questions and this can be used as a model to test the aspiring entrepreneurs to forecast about their sales performance in future.

The important variables are: achievement motivation, age and other knowledge of borrowing. Below mentioned variables as given in equation are significantly related to the sales performance and thus, selection model rural leather entrepreneurs shall be:

$$\begin{aligned} \ln(\text{Sales}) = & \alpha - 0.322 * \text{AchM} + 0.092 * \text{Age} + 1.6 \text{OKB} - 0.256 * \text{LOC} \\ & + 0.172 * \text{ND} + 0.272 * \text{SE} \end{aligned}$$

## VI.0 CONCLUSION

The primary objective of this paper is to document systematic behavioral differences that affect the performance of successful entrepreneurs, specifically rural leather entrepreneurs. We have developed an empirical framework for rural leather entrepreneurs to analyze the importance of various factors and questions to sales performance. The performance appears to be systematically driven by psychological factors.

Moreover, entrepreneurs with high sales performance, score high on certain questions. Thus, the selection criterion is also different and a selection strategy has been developed based on

these findings. While the framework we follow is quite extensive, it doesn't allow us to estimate the causal effect of entrepreneurial policies on performance. Thus, although the findings of the paper focus on the rural leather entrepreneurs, the analysis and methodology developed could have a much broader interest for organizations involved in rural leather entrepreneurship.

As for further research, we come across issue of variation in the entrepreneurial traits with respect to culture, geography and also macro economic status. It would be important to know whether they prefer entrepreneurial qualities over managerial skills or a balance of both. And further the role of training for grooming of skills required for sustaining over business cycles.

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