

Identifying and Analyzing Challenges Faced by Start-Ups in Civil Industry

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Abstract : The construction industry is one of the main contributors to GDP and a source of jobs. Unfortunately, it is also one of the least organized and technologically advanced sectors. Any startup in this industry can face slow growth and difficult customer acquisition. The construction industry in India is booming as a result of ongoing urbanization, upcoming infrastructure projects, and a rising population base. It is the third largest contributor to economic development, with several ongoing project opportunities.

Ample opportunities for personnel being as civil engineer to be an entrepreneur. India is developing country and scope of advancement in technology used in construction industry. Startups can provide the unique marketable solution which sensitize & address the industry problems. There are quite more challenges to the civil industry startups compared to other industry viz IT, Computer, etc. Startups in civil industry may face challenges related to finance, Marketing, Human Resource & Operational challenges. This research identified the personal ability and skills as the driving internal factors, and also identified the challenges related to initial funds and its management, which are identification of fund source and managing losses and risks. Further, study identified the Managing the time, cost and resources and Lack of experience as the major operational challenges while recruiting the right people identified as the human resource related challenge. So, this research is to about identifying various challenges faced by construction industry startups.

Index Terms – Startup, Civil, Entrepreneurship, Challenges, Construction

I. INTRODUCTION

The construction industry requires a great deal of documentation and compliance. In developed countries, the industry adheres to all regulations. As a result, if a startup develops a solution that makes their lives simpler, the industry will enthusiastically accept it. Unfortunately, the Indian sector tries to go around the regulations. As a result, for many firms, employing any successful solution could be disadvantageous.

India is a nation of opportunity; by 2025, it is predicted that India will be the world's third largest construction market. The infrastructure market is expected to require \$ 965.5 million in investments by 2040. As a result, there are several opportunities for entrepreneurs to embark on the adventure of becoming an innovator, self-employed, providing solutions to complex problems, and fulfilling demand and supply. The Indian government also announced a number of programmes aimed at assisting startups and small companies. The construction business accounts for only 13% of all non-technology-based start-ups. In comparison to other industries, this is fairly low. (Dr. G Suresh Babu & Dr. K Sridevi, 2019)

II. WHAT IS STARTUP?

According to Startup India, a startup is a new firm that was founded by one or more entrepreneurs and is just getting started.

A startup is a business that creates a scalable and replicable business model based on product or service innovation in order to become self-reliant.

According to Neil Blumenthal, cofounder and co-CEO of Warby Parker “A start-up is a company working to solve a problem where the solution is not obvious and success is not guaranteed.”

III. DEFINITIONS OF ENTREPRENEURS FROM EXPERTS

American entrepreneur and investor Brad Feld defines that “An entrepreneur is someone who creates new company from scratch.”

An entrepreneur is someone who mixes passion, innovation, and drive to turn a vision into a working business as per American author Jeet Banerjee

A person who solves problems for people, at a profit. – Jared Joyce, Inventor. Investor & Entrepreneur.

IV. NEED FOR STUDY

It is not incorrect to assert that each individual has considered becoming an entrepreneur or self-employed. However, only a small percentage of them achieve their goal, as the construction sector presents numerous and unique hurdles to the aspirant, which ultimately lead to failure for a number of reasons. According to one study, just 5% of the adult population manages to start their own business, and the failure rate is among the highest in the world, at 26.40 %. So, it must be to identify what are the challenges faced by startups/businesses?

V. OBJECTIVES

The primary objective of this study is to identify and analyze the problems that civil industry startups encounter, as well as to improve the position of young people who want to start their own business and get off to a better start. Unfortunately, many people have failed to achieve success or have withdrew and continued working with the working as employee due to a fear of failure.

VI. RESEARCH METHODOLOGY

VII. LEARNING FROM LITERATURE

Qualitative data collection approach has taken by the most off the researchers. Qualitative secondary data has been collected via

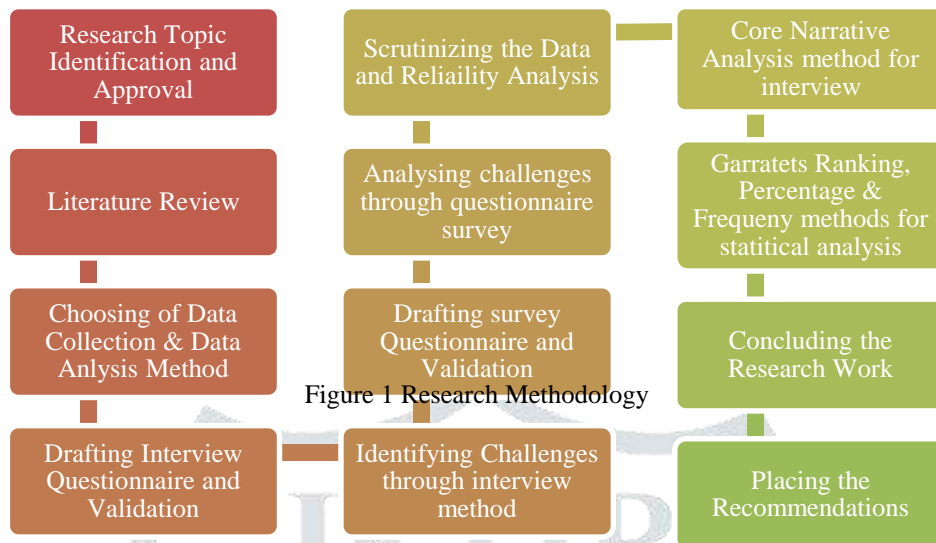


Figure 1 Research Methodology

various sources and based on that proposed recommendation has been made. For quantitative study questionnaire survey is used with percentage and frequency analysis method to analyze the collected data and represent the result. Cronbach's alpha reliability analysis was performed to determine the reliability of the data obtained. The majority of the studies used qualitative methods to attain their objectives. Few research is with a comprehensive point of view, and most studies are based on qualitative secondary data. A survey was conducted for the quantitative approach questionnaire, and the Cronbach's alpha reliability test was performed.

It has been noticed that the majority of research studies are dependent on qualitative secondary data, with no proof of primary data, either qualitative or quantitative, to draw conclusions. Furthermore, no sector-specific difficulties have been identified, therefore there is room to find challenges related to the civil industry. Major challenges which were observed by the literatures are as follows, Lack of finance, help from the financial institution, problems related to human resource, competent manpower at the affordable cost, identification of market, preparing for strategical move, Technological challenges are the major identified challenges to be faced by entrepreneurs. Along with that support from the family and friends, societal issue, fear of failure is should be equally managed.

VIII. DATA COLLECTION

The triangulation method is applied in the data collection process. It's a research method that incorporates both quantitative and qualitative research methods. The triangulation method aids in increasing the efficiency of research effort. Qualitative secondary data includes, among other things, reviewing research papers, reading web research articles, and reading books. This also supports in the creation of a plan for gathering primary data for the qualitative study. The interview procedure is used to acquire primary data for the research project. A pre-determined questionnaire was used to interview entrepreneurs.

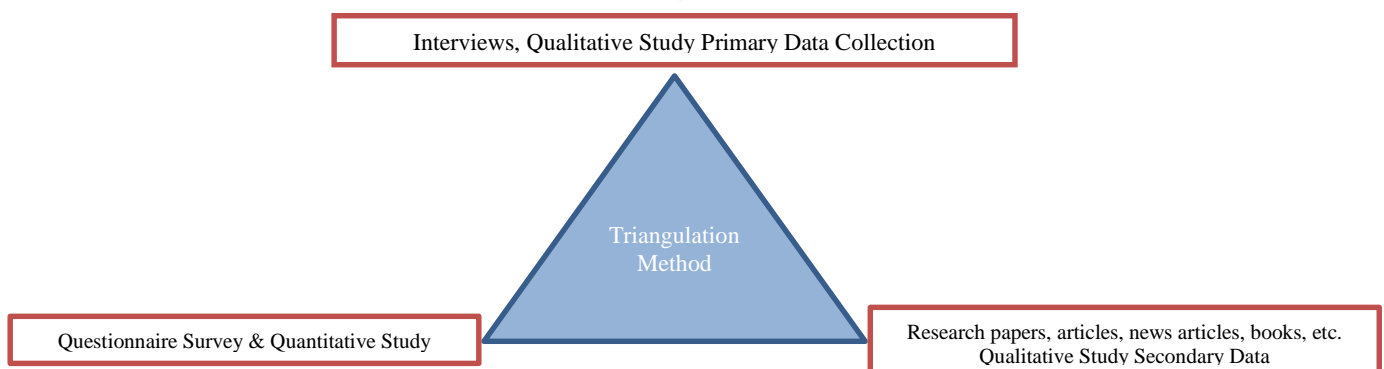


Figure 2 Triangulation Method

6.1 Questionnaire Design

The questionnaire is structured with 13 questions to capture 360° details, followed by six ranking variables. Basic information was obtained about the entrepreneur's experience, company foundation year, location, and educational level, etc.

A questionnaire consists of four components. The first section discusses the demographics of the respondents, the second section discusses the internal and external factors that influence entrepreneurs, the third section discusses startup challenges and talents, and the fourth section discusses the respondents' perspectives were done using questionnaire survey form with the multiple-choice multiple response type questions.

6.2 Sample Size Analysis

The sample size formula for finite and infinite population is used.

$$SS = \frac{Z^2 * p * (1 - p)}{c^2}$$

Where,

Z = Statistic value of confidence level (1.96 for the 95% Confidence Level)

P = % picking choice (If not known then use 0.5) (50% expressed in decimal)

C = Confidence interval 10% (0.1 in decimal)

$$New\ SS = \frac{SS}{1 + \frac{SS-1}{pop}}$$

Pop = Population = 147; New Sample Size = 58

6.3 Questionnaire Validation and Responses

Both the questionnaire was reviewed by the industry experts and suggestions were made by them to improve the questionnaire. Entrepreneurs who registered their business with Startup India or were referred by industry experts were selected for an interview. A total of 14 entrepreneurs were approached for the interview, and 9 were selected. An online questionnaire survey was used for the quantitative analysis. The purpose of the questionnaire survey was to corroborate the findings of the interview and to determine which challenges are most relevant to entrepreneurs, prospective entrepreneurs, incubation centers, mentors, and other stakeholders. A total of 75 people responded to the questionnaire survey link, which was sent out by email, social media, text messages, and Linked-in In-mail.

IX. DATA ANALYSIS & RESULTS

7.1 Method for Data Analysis

Data was gathered using two separate methods, each of which necessitated a different approach to data analysis. To begin, the interview data was analyzed using a core narrative analysis methodology. Second, respondents were asked to rank items in order of severity, and the results were analyzed using the Garrets ranking method. A total of 9 interview transcripts were analyzed using the core narrative analysis method, Data analysis of quantitative data was carried out using IBM SPSS software by the frequency and percentage analysis methods and 58 responses were chosen for quantitative analysis after thorough scrutiny.

7.2 Reliability Analysis

The Cronbach's alpha reliability test is used to determine the data's internal consistency. This demonstrates that the data gathered is accurate and it is calculated using IBM SPSS Software. The alpha value of Cronbach's alpha is 0.821. As a result, the value lies between 0.8 to 0.9 Cronbach's alpha reliability value indicates that the data collected has good level of internally consistency.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.821	.877	85

Table 1 Reliability Analysis

7.3 Core Narrative Analysis

7.3.1 Internal/External Factors

Each individual has their own set of reasons that influence their decision to become an entrepreneur, which can be divided into two categories internal and external factors. Internal factors, the most prevalent factor observed among entrepreneurs is their zeal and desire to be an entrepreneur and the desire to become independent is also a factor that many people share. Further, Few of them desire to establish themselves and stand out from the crowd, in order to become job creators rather than job seekers. Being innovative and having a desire to learn new things are two more aspects that acted as catalysts. External considerations, such as their experience at their specific organization where they worked, company internal politics, and not being paid or rewarded according to their job efficiency and talents, are all trigger points for salaried employees to become entrepreneurs. In addition to that, "How they can do it but I can't?" This concept struck an entrepreneur's head, motivating him or her to use their risk-taking abilities.

7.3.2 Financial Challenges

The entrepreneurs admitted that the critical challenge for entrepreneurs is raising initial funds/capital for their firm and getting on the route to success is figuring out how much of a funds you'll need and where you'll get it. Which will be followed by the receipt of cash, the selection of an appropriate finance model and management of the business's finances becomes critical. They are working with such a small amount of capital as a startup, and they must manage expenses, make profits, manage losses, and set aside a buffer fund for future expansion. Persuading investors to invest in your firm. Obtaining funds from banks and financial institutions while adhering to all criteria and papers is a difficulty. Another financial difficulty that startups have encountered is payment-related issues, in which payment delays cause problems. Financial assistance to the family till the startup is operational and profitable.

7.3.3 Marketing & Strategy Challenges

Most entrepreneurs struggled with market identification and marketing, as well as customer and business-related strategic issues. What is the market and consumer demand, as well as the selection of a suitable marketing plan to capture the client base, are the issues that startups confront when it comes to market identification. Further, the construction business is less prone to technological adoption and possesses rigidity, both of which operate as hurdles to new concepts and technology in comparison to traditional and conventional markets. Furthermore, industry giants are the biggest competition to startups since they have a lot of resources; however, local competitors provide a different set of obstacles since they quote lower rates for the work which can be difficult for startups to compete with. In addition to that, References for work are extremely crucial in the construction sector; without them, it is difficult to secure work, which has an impact on the process of obtaining and growing a customer base. One other reason to grant the work is experience, and clients in the construction business have a general inclination for experienced workers over freshers. Many businesses fail within the first five years, making it more difficult to build a long-term firm with a dedicated customer base.

7.3.4 Operational Challenges

Entrepreneurs acknowledged that a lack of job experience causes operational difficulties and this has an impact on the completion of planned tasks and the implementation of strategies. Startups of the construction business needs to set up infrastructure, including a workspace, tools and equipment, machinery, and assets for the development of manufacturing facilities, among other things along with that the delivery of the quality product at initial phase at the competitive price gets harder. Further, to comply with regulations and obtaining certificates and license and for that bribe to concerned person of authority and the estimating business expenses is difficult enough, but when unanticipated losses arise as a result of inefficient operation management, the challenges become even greater.

Nowadays, technology develops and develops at a quick pace, making previous technology obsolete in no time. As a result, entrepreneurs must keep up with the latest innovations while still meeting client demand. For entrepreneurs, effective time management, correct utilization of available resources, and cost control are key factors and if one of the components is overlooked, the entire organization suffers. Client relationship management, contract and agreement drafting, and building effective communication channels with clients, vendors, and contractors, is the among the important things. Startups and entrepreneurs work hard to overcome challenges, yet they have had problems in protecting their intellectual property.

7.3.5 Human Resource Challenges

Many startups lack a designated Human Resource department to handle the organization's HR-related tasks and one of the founders or the entrepreneur is in charge of all human resource related affairs. According to entrepreneurs, finding the appropriate people for the right jobs is a difficult challenge. In addition to that, due to the uncertainty of the startup's future, the experienced are less eager to join the company and also the company has insufficient finances to pay the required payroll. Working patterns and ideologies of startups differ from those of traditional businesses, therefore finding a suitable candidate with a similar ideology to the organization's needs to be considered in order to maintain the organization's environment's harmony. Because the experienced are less likely to join a business, entrepreneurs turn to the freshers, but they require training and development, which takes time and money. Building a team is one of the most difficult problems that businesses confront along with that Drafting the organization's HR policy, employee productivity, and employee job hoping are other challenges.

7.3.6 Predicted vs Actual Challenges

When entrepreneurs were asked about the similarities and differences between projected and real obstacles, the majority of entrepreneurs believed that there was a clear distinction between the two. Actual costs exceeded budgeted costs, and a product that is regarded ready to market fails to gain traction, the estimated complexity of difficulties is greater than expected. They also believed that they would at least earn the same amount of money as before, but some of them failed to do so. When they looked into what was causing this disparity, they discovered that it was due to framed information they received from others and untrustworthy sources of information.

7.3.7 Reasons for Failure

Improper financial planning and arrangement of buffer fund to survive in crisis or to boost up business and the ineffective communication and client handling & Lack of strategical planning are the few of the reasons for the failure of construction industry startups. Entrepreneurs has to learn about warning signals from the business, running continuous loss-making business, not accepting failures are the other reasons and also seeking the overnight success & Lack of patience cause the failure.

7.4 Henry Garret's Ranking Analysis

The challenges were categorized into six categories, and interviewees entrepreneurs were asked to rank categories into order of one to six in terms of severity based on their personal experience. After that the total garret value is calculated and the garret score and average score is determined.

Categories	1	2	3	4	5	6	Total Garrets Value
Financial	231	126	0	138	0	23	518
Marketing	154	189	54	92	0	23	512
Operational	77	63	324	46	0	0	510
HR	0	126	108	92	108	0	434
Social	0	63	0	46	144	69	322
Family	231	0	0	0	72	92	395

Table 2 Total Garret Value

Ranking	Garret Score	Average Score	Rank
Financial	518	57.55	1
Marketing	512	56.88	2
Operational	510	56.66	3
HR	434	48.22	4
Family	395	43.88	5
Social	322	35.77	6

Table 3 Garret Ranking Method

According to respondents, one of the most impacting factors for startups is financing, which is closely followed by marketing, strategy, and operational issues, all of which have nearly identical scores. Human resources and family-related issues were in fourth and fifth place, respectively. Social challenges, on the other hand, are given less weight and are rated sixth.

7.5 Frequency & Percentage Analysis

7.5.1 Internal Factors

Only 20 of the 58 respondents wanted to be an entrepreneur to create their own brand and improve their image, with 65.5% percentage value personal ability and skills is the motivation for aspirants to become entrepreneurs. Startups are defined by their ability to innovate, and 55 percent of aspirants want to be entrepreneurs because of the same reason.

Internal Factors	Frequency	Percentage	Percentage Respondents Replied
Will to be an entrepreneur/ businessman	29	19.08%	50.00%
Will to create own brand/image	20	13.16%	34.48%
To be innovative	32	21.05%	55.17%
Being independent & Self – Confident	33	21.71%	56.90%
Personal ability and skills	38	25.00%	65.52%
	152	100%	262%

Table 4 Internal Factors

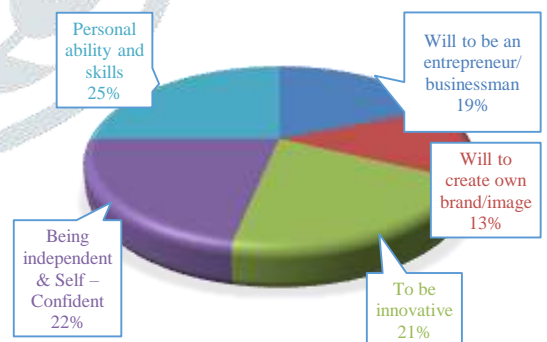


Chart 1 Internal Factors

7.5.2 External Factors

External Factors	Frequency	Percentage	Percentage Respondents Replied
Organization culture & Internal politics at workplace	34	20.86%	58.62%
Inspiration from observing other entrepreneurs or encouragement from others	25	15.34%	43.10%
Not getting acknowledgement as per your effort	24	14.72%	41.38%
Team members with entrepreneurship ideology	25	15.34%	43.10%
Inspiration from managerial books, movies, etc.	16	9.82%	27.59%
CoVID-19	22	13.50%	37.93%
Government Policies	17	10.43%	29.31%
	163	100%	281%

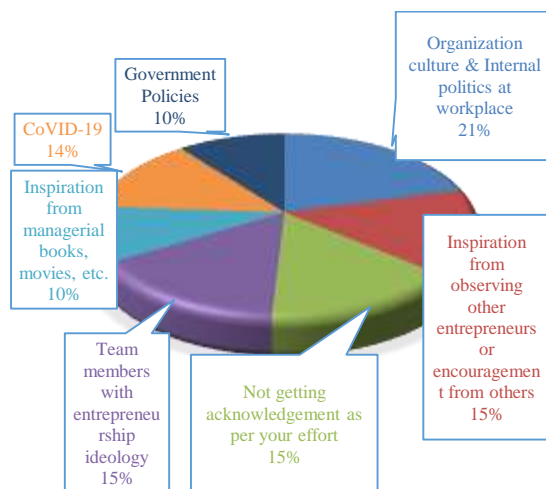


Table 4 External Factors

Chart 2 External Factors

Internal politics and organizational work culture are the key factors that lead entrepreneurs to quit their jobs and start their own businesses, according to nearly 59% of respondents, and the same was discovered in interviews. Other successful entrepreneurs, on the other hand, serve as an inspiration for entrepreneurs, which stimulates the 43% of respondents. Furthermore, when an individual is not paid for their efforts or their work is not acknowledged, they are pushed to consider a career in business. Aspirants did not think that watching movies or reading books could assist them in making up their minds.

7.5.3 How do you foresee support from the family?

Factors	Frequency	Percentage	Percentage Respondents Replied
Support & Respect of the decision to quit the job and being self-employed	33	32.04%	56.90%
Support with initial funds	21	20.39%	36.21%
Cutting down with expenses	18	17.48%	31.03%
Support with connection, links & References	31	30.10%	53.45%
	103	100%	178%

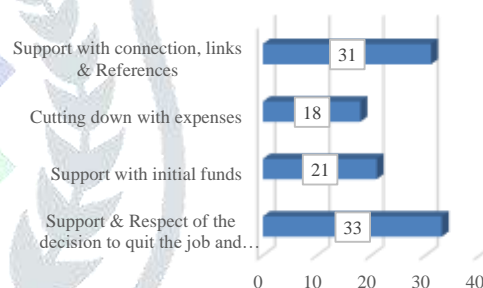


Table 5 Factors related to Family

Chart 3 Factors related to Family

When the family supports the individual's desire to become self-employed, 33 of respondents want this kind of support, while just 31% want the family to shrink expenses until the pieces are properly put. More than half of aspirant's desire to use their family's connections and references to help them grow at first.

7.5.4 Initial Fund Related Challenges

Challenges	Frequency	Percentage	Percentage Respondents Replied
Selection & identifying of fund source	32	20.38%	55.17%
Identifying capital requirement	31	19.75%	53.45%
Raising Capital	29	18.47%	50.00%
Getting advances from the Bank/Financial institutes	24	15.29%	41.38%
Arranging buffer fund	17	10.83%	29.31%
Convince investor to invest in your startup(concept/Idea)	24	15.29%	41.38%
	157	100%	271%

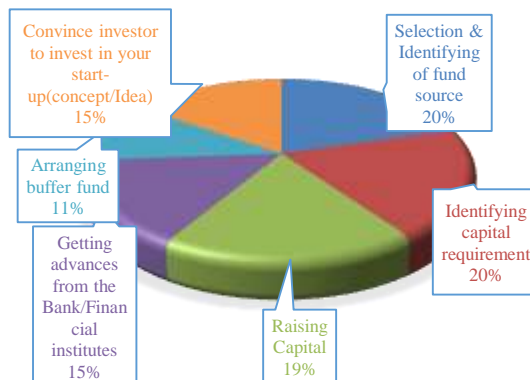


Table 6 Initial Fund Related Challenges

In terms of initial funding, Identifying and selecting a funding source is the element that 32 respondents considered as the most difficult, followed by determining the amount of capital required for a business, which received 53.45% of the responses. Aspirants are less concerned with a startup's buffer fund for dealing with a crisis.

7.5.5 Finance Management Related Challenges

Challenges	Frequency	Percentage	Percentage Respondents Replied
Fund/Cost management and future working capital developments	33	27.27%	56.90%
Support family financially until start-up works	24	19.83%	41.38%
Managing losses & Risks	35	28.93%	60.34%
Payment related issues	29	23.97%	50.00%
	121	100%	209%

Chart 4 Initial Fund Related Challenges

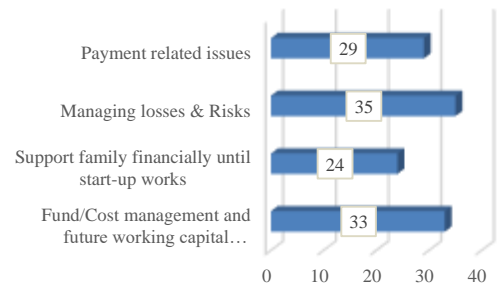


Table 7 Finance Management Related Challenges

Respondents say that managing losses and risks in the firm is the most difficult aspect of fund management, whereas payment-related obligations have a lesser impact on startups.

7.5.6 Marketing & Strategy (Identification) Related Challenges

Challenges	Frequency	Percentage	Percentage Respondents Replied
Identifying market & customer demand	29	22.48%	50.00%
Appropriate marketing strategy	27	20.93%	46.55%
Market & Potential customer identification	18	13.95%	31.03%
Traditional & Rigid market (Less adoptability to innovations and new concepts)	28	21.71%	48.28%
Identifying Market condition & trend	27	20.93%	46.55%
	129	100%	176%

Chart 5 Finance Management Related Challenges

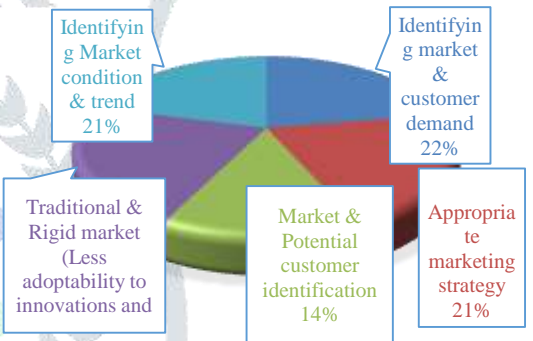


Table 8 Marketing & Strategy (Identification)

Chart 6 Marketing & Strategy (Identification)

Fifty percent of respondents believe that knowing what the market and customers want is vital for startups, while 27 believe that deciding on the best marketing plan for their company is difficult. Nearly 48% feel that startups work toward technological advancement and new concepts, but that conventional and rigid markets limit their development.

7.5.7 Marketing & Strategy (Customer & Business) Related Challenges

Challenges	Frequency	Percentage	Percentage Respondents Replied
Competition form industry giants	39	21.67%	67.24%
Competition from local market	28	15.56%	48.28%
Acquiring & Growing customer base	18	10.00%	31.03%
Work without reference	21	11.67%	36.21%
Categorization of customer	17	9.44%	29.31%
Preference experience over freshers	15	8.33%	25.86%
Gaining Competitive Advantage	21	11.67%	36.21%
Developing Sustainable Business	21	11.67%	36.21%
	180	100%	310%



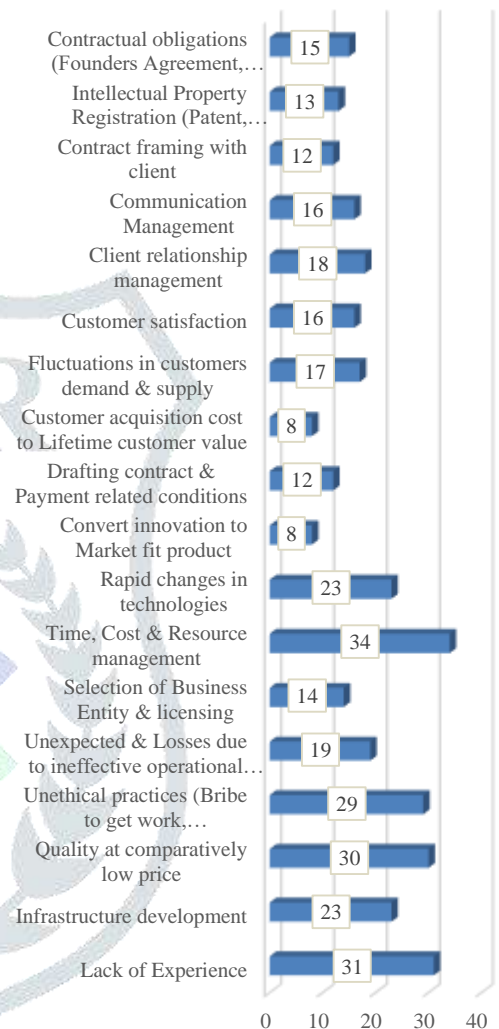
Table 9 Marketing & Strategy (Customer & Business)

Chart 7 Marketing & Strategy (Customer & Business)

Existing established enterprises, according to 67% of respondents, are the main opponent to startups, with local small-scale marketplaces providing further competition, while acquiring and growing is the least considered. With roughly 36% of the responses, getting work without a reference, acquiring a competitive advantage, and creating a sustainable business are all equally weighted by the respondents.

7.5.8 Operational Related Challenges

Challenges	Frequency	Percentage	Percentage Respondents Replied
Lack of Experience	31	9.17%	53.45%
Infrastructure development	23	6.80%	39.66%
Quality at comparatively low price	30	8.88%	51.72%
Unethical practices (Bribe to get work, Registration, etc.)	29	8.58%	50.00%
Unexpected & Losses due to ineffective operational handling	19	5.62%	32.76%
Selection of Business Entity & licensing	14	4.14%	24.14%
Time, Cost & Resource management	34	10.06%	58.62%
Rapid changes in technologies	23	6.80%	39.66%
Convert innovation to Market fit product	8	2.37%	13.79%
Drafting contract & Payment related conditions	12	3.55%	20.69%
Customer acquisition cost to Lifetime customer value	8	2.37%	13.79%
Fluctuations in customers demand & supply	17	5.03%	29.31%
Customer satisfaction	16	4.73%	27.59%
Client relationship management	18	5.33%	31.03%
Communication Management	16	4.73%	27.59%
Contract framing with client	12	3.55%	20.69%
Intellectual Property Registration (Patent, Trademark, Copyright, etc.)	13	3.85%	22.41%
Contractual obligations (Founders Agreement, Non-Disclosure Agreement, etc.)	15	4.44%	25.86%
	338	100%	583%



The success of a startup is influenced by its ability to operate effectively, and 53% of respondents believe that a lack of experience can hinder operations. Furthermore, according to 34 respondents, time, cost, and resource management is the most difficult aspect of the operations. Providing quality at a low price can also be challenging for a startup at first. Furthermore, 23 respondents say that coping with rapid technical developments is difficult for them. 32% respondents believes that the startups encounter the unexpected losses due to ineffective production or operation handling which leads them to the difficult situation. Delivering to the satisfaction of the client and maintaining excellent communication can be considered as challenge.

7.5.9 Human Resource Related Challenges

Challenges	Frequency	Percentage	Percentage Respondents Replied
Hiring right people for right job	43	20.09%	74.14%
Experienced less willing to join start-ups	23	10.75%	39.66%
Limited fund to hire experienced/trained personnel	31	14.49%	53.45%
Identification of candidate with matching Ideology & Working pattern of organization	22	10.28%	37.93%
Team Building	21	9.81%	36.21%
Drafting HR Policy (Including clauses related to Non-Compete, Non-Poach, etc	15	7.01%	25.86%
Time & Cost incurred in Training & Development	21	9.81%	36.21%
Productivity of employee	24	11.21%	41.38%
Employee job hoping	14	6.54%	24.14%
	214	100%	369%

Table 11 Human Resource Related Challenges

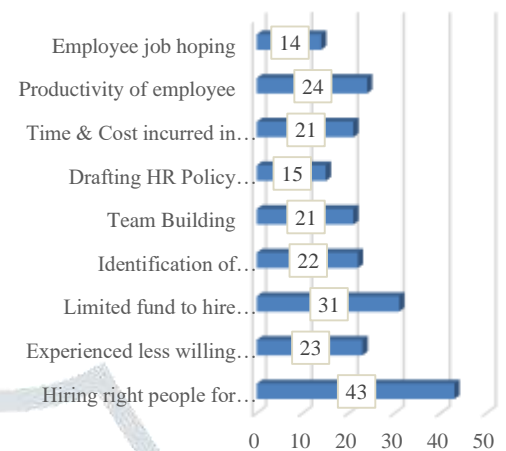


Chart 9 Human Resource Related Challenges

With a shortage of funds to acquire experienced individuals and a high payroll, 75% of respondents believe that recruiting the right people for the right job is extremely difficult. Employee job hunting is not a major concern for startups, with only 14 respondents believing that it is difficult, and that establishing HR policy is not a big task. However, 38% of respondents responded that finding an employee who shares the organizational vision is a critical issue.

7.5.10 What do you think are the strengths of the entrepreneur?

Factors	Frequency	Percentage	Percentage Respondents Replied
Attitude & Nature	38	8.76%	65.52%
Leadership	38	8.76%	65.52%
Management	45	10.37%	77.59%
Visionary	36	8.29%	62.07%
Motivator	26	5.99%	44.83%
Team-Player	31	7.14%	53.45%
Interpersonal skills	30	6.91%	51.72%
Good Observer	26	5.99%	44.83%
Learner	35	8.06%	60.34%
Clear to the goals	25	5.76%	43.10%
Consistent Performer	25	5.76%	43.10%
Honest	36	8.29%	62.07%
Hardworking	43	9.91%	74.14%
	434	100%	748%

Table 12 Strengths

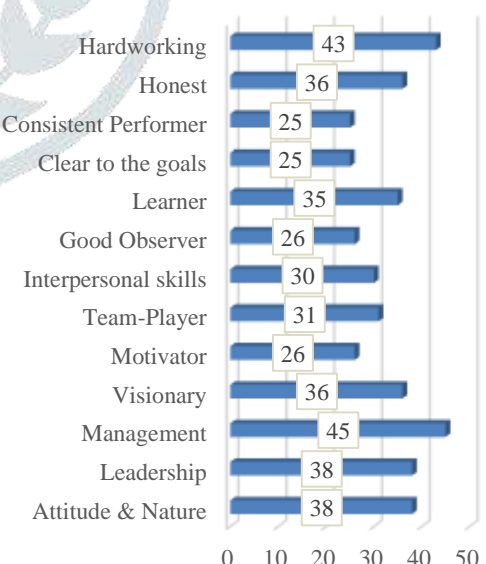


Chart 10 Strengths

Individuals' management abilities are regarded as a strength of entrepreneurs by 45 respondents, while their attitude and nature, together with their leadership skills, are key elements.

7.5.11 Do you know about various funding methods to raise capital?

Sixty percent of respondents are aware of capital-raising funding strategies, whereas forty percent are unaware of such ways

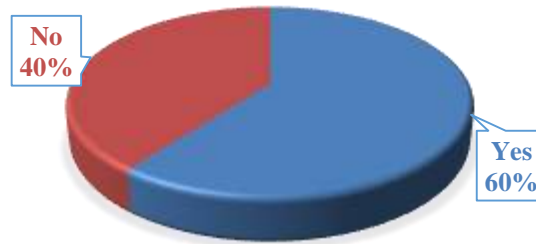


Chart 11 Funding Methods

7.5.12 From following which one will preferred by you most?

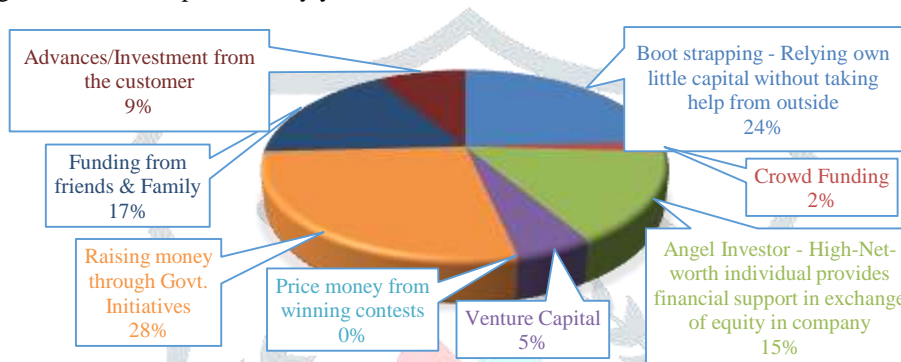


Chart 12 Preferred Funding Methods

Government supports startups through startup India initiatives through incubators, and it is the most preferred funding method by respondents, followed by boot strapping, which is chosen by 24% of respondents. Advances from customers and venture capital funding are the least preferred funding methods.

7.5.13 From the following which one is more important for success of the start-up?

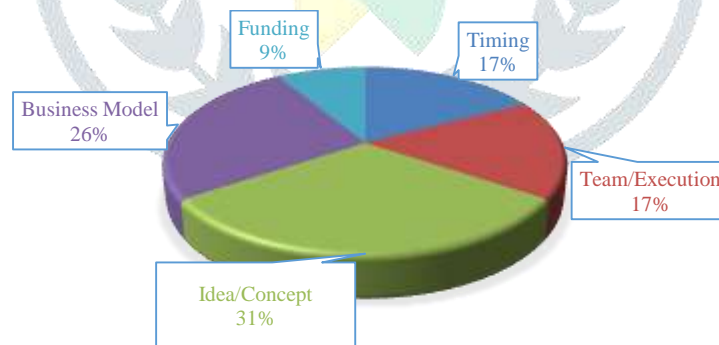


Chart 13 Success Factors

The key success factor for startups, according to 31% of respondents, is the idea/concept, while the business model, according to 26%, is vital to achieve success.

7.5.14 Do you know about intellectual Property & How you can protect it?

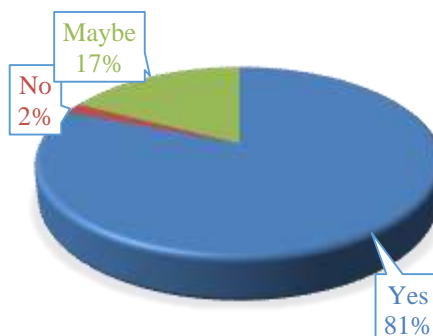


Chart 14 Intellectual Property Right

7.5.15 From following which strategy, you want to adopt for your business to compete in market?

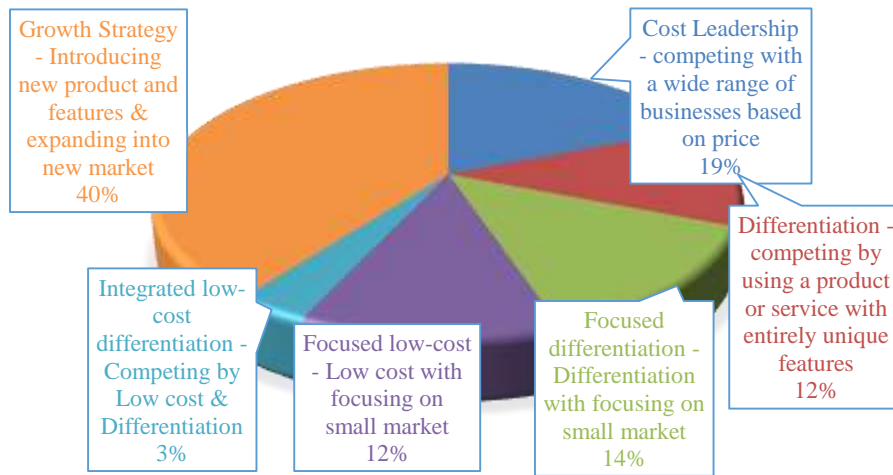


Chart 15 Intellectual Property Right

Growth strategy is examined and favored by 40% of respondents to enter the market and compete, while differentiation and a focused low-cost strategy are considered by 12% of respondents.

7.5.16 Do you think that subject related to entrepreneurial skill development should be introduced in academics?

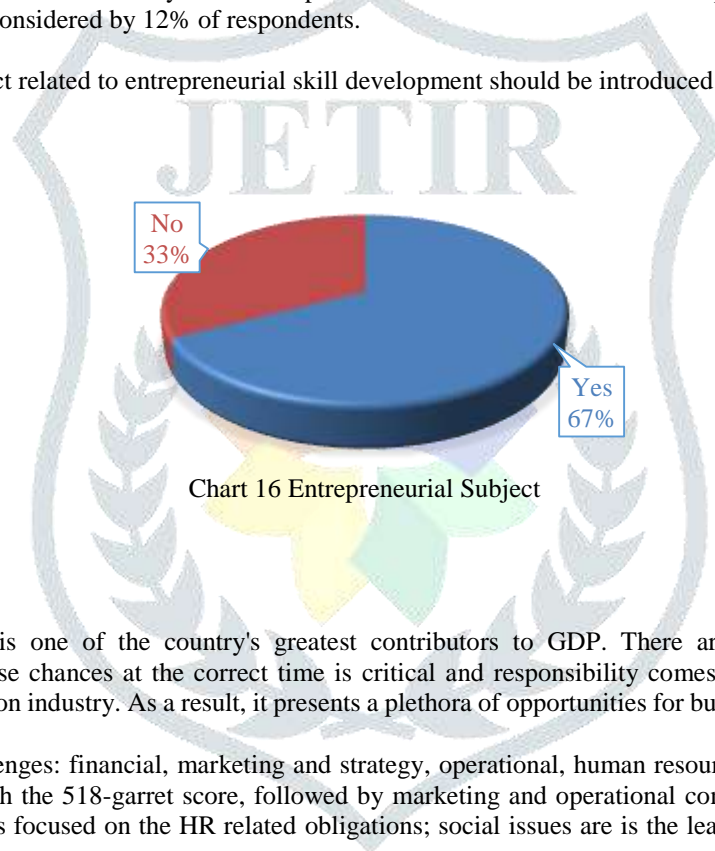


Chart 16 Entrepreneurial Subject

X. CONCLUSION

The construction industry is one of the country's greatest contributors to GDP. There are several chances available to entrepreneurs, and seizing those chances at the correct time is critical and responsibility comes with challenges. The country's growth engine is the construction industry. As a result, it presents a plethora of opportunities for budding entrepreneurs to innovate.

There are six areas of challenges: financial, marketing and strategy, operational, human resource, family and social. Financial concerns were ranked first with the 518-garret score, followed by marketing and operational concerns with the 56.88 and 56.66 average score. Startups are less focused on the HR related obligations; social issues are is the least affecting factor which ranked 6th.

There are certain influential factors that influence the decision of aspiring entrepreneurs, and 65 percent believe that personal ability and skills are important in becoming an entrepreneur, while projecting oneself as a brand image is the least selected factor. Being innovative, as well as being self-independent, have similar scores. With the interviewed employees, a distinctive trajectory in the desire to be an entrepreneur is noted. 59% of people feel that a company's work culture and internal politics are important factors in deciding whether or not to become an entrepreneur. When accompanied by someone who believes in entrepreneurship, one is more likely to become an entrepreneur, and the same pattern was observed with the entrepreneur that was interviewed. Support from family has become increasingly important for entrepreneurs, as the success or failure of a startup will have a direct impact on them, and aspirants seek their support in making the choice to become entrepreneurs. In addition, 53% of aspirants want to use their family's references and connections to start a business. On the other hand, they do not want to financially burden the family, nor do they want to rely on them for finances, nor do they want to cut back on costs.

Furthermore, 54 percent say it's difficult to figure out how much money they'll need. Startups are initially less concerned about having a reserve fund to deal with a catastrophe. Startups predict losses and risks due to internal and external factors, and 60% say that managing that fund is difficult. Industry giants and the competition from the local market pose the greatest threat to startups, Half of respondents believing that assessing market and customer need is challenging. When it comes to startup operations of the civil industry, 59% believes that the three operating characteristics of time, cost, and resource effective utilization are critical for success. Another operational level difficulty is a lack of experience with the 31 responses. Aspirants believes that achieving quality at a low cost without compromising on quality is difficult. Bribery to gain work puts startups in a tough predicament, where coping with quick technological advancements and meeting shifting client demand affects them.

The first issue for entrepreneurs is to find the right employees for the right position with the 43-frequency value. Because startups do not have a large workforce, a single bad hire can have a significant impact on the entire firm. Because startups have a limited budget, it can be challenging to recruit skilled personnel with that amount of money., and experienced personnel are less likely to join them owing to the uncertainty. Managerial skills and the hardworking are the strengths of the entrepreneur as he or she must have to deal with all the possible challenges and effective management can leads to the success. One-fourth of respondents want to generate money through government initiatives, while about the same number want to use boot strapping. Crowdfunding and venture capital are less popular investment options with less than 5% responses. A significant number of aspirants wish to raise money from their family and friends.

When it comes to the success of startups, there are a few factors to consider. The startup's idea/concept is the most significant aspect and considered by the 31% of the respondents, followed by the business model, timing and team/execution being equally critical. When it comes to funding, it's near the bottom of the list. People believe that the growth strategy is adequate to compete in this competitive market, where startups face new challenges every day. The majority of respondents believed that a subject on entrepreneurial skill development should be introduced in academics.

8.1 Recommendation

- The government of India established startup incubation centers as part of the "Startup India" initiative to assist entrepreneurs. Connecting with them for financial, innovation, market, and other guidance might help firms expand faster in the early stages.
- Focusing on achieving a durable competitive advantage is critical for startups in construction industry since it allows them to increase their market position in terms of cost or distinctiveness.
- Civil engineering startups are vulnerable to competition, and as we've seen in marketing challenges, they face competition from industry giants and local competitors. Rather than competing directly with them, businesses should pursue a blue ocean strategy and focus on developing new markets. Raise, Eliminate, Reduce & Create. Bringing the technological advancement into the business will be the competitive advantage to the startup and focus on the research and development.
- Enlisting of the financial objectives of the organization helps to comply the financial challenges.
- Preparing the balance scorecard or the strategy landscape for the organization will helps to execute the strategies and develop the strategical advantage to the organization.
 - Objectives
 - Strategy
 - Initiatives
 - Measures/KPIs
- Using the strategical tools to develop the strategy like core competence analysis and BCG Matrix.
- Consulting legal counsel on securing intellectual property rights, such as patenting an invention, obtaining copyright, establishing non-disclosure agreements, and non-competition agreements with personnel, is a prudent and correct move for a business.

8.2 Future Scope

This study focused on the challenges faced by startups of the civil industry regardless of the classification it covered the all three categories of the industry altogether in this study. The civil industry is classified into three categories: service, construction, and manufacturing. more research can be done whenever possible to discover the issues that each sector faces and the comparative study between challenges of each sector can be done.

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