

“Non Graduate’s Turnover hike in (Solapur)India: the case of Profit maximization using Linear Programming Problem”

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Abstract

Entrepreneurship is being emphasized as a strategy that individuals can change not only one’s own life but also the fate of a region and even the destiny of a country. That is, business start-ups. Currently, the long-term global economic crisis is accelerating, and the concerns for future uncertainties are spreading throughout our society. In recent years, research on the parental role models and entrepreneurial intentions has increased noticeably. This is qualitative research based on case study to define entrepreneurship and the sources of entrepreneurship. With the help of this case study, researcher is going to provide practical guidelines on how to manage entrepreneurship. This Case defines the state of research about the relationship between entrepreneur’s dexterity and entrepreneurship. In this case researcher used operation researcher technique to suggest profit maximization points of business as well.

Keywords: Social Engineering, Product mix, Reasonable product price, Service, Consultancy, Profit Maximization, Linear Programming Problem.

1. Introduction

Entrepreneurship is a part of business existence. It shows that business is healthy when there are entrepreneurial skills. The current study investigates a single case where entrepreneur, having no any higher education and having no much more investment, but instead of that he establishes a successful mess business with the help of AKIMSS consultancy team. AKIMSS consultancy teams guide him, how to double his profit and how to expand his business. Mr.Kulkarni is non graduate professional who doesn’t have knowledge about resource management and fund management. AKIMSS consultancy team guides him to manage his business without any obstacle. The authors have decided to publish this case as final work which is will motivate other young entrepreneur to startup their business. The authors have taken full responsibility for the originality of the Case.

2. Literature review

A study on the effect of entrepreneurship on economic growth found that positive and significant relation between economic growth and entrepreneurship. As results increasing entrepreneurs in a country can result in higher economic growth. (Park, C., 2017) Parksaid that, “entrepreneurs are not born but we can make entrepreneurs and trained them through education”. This means that without entrepreneurship education, students’ entrepreneurial spirit cannot be cultivated (Yoon, 2004) measured that; commercial objective is the first step in establishing one’s business. Yoon also says that, “positive attitude should be preceded prior toward business start-up decision to start his/her business”. (Krueger et al., 2000) defined “entrepreneurial intention as an individual’s effort to start his/her business so that without it, one would not be able to proceed further”. Considering that starting a business can be fulfilled through calculate and intentional activities, the first step, entrepreneurial intention, is essential for understanding overall phenomena involved in business start-up, as it is a key element in determining the early characteristics of start-ups. (Bin & Park, 2002) While the entrepreneurs with low risk-taking tendency try to avoid risks or make decisions cautiously, ones with high risk-taking inclination tend to make decisions faster to capture opportunities. (Covin & Slevin, 1991) claimed that “pro-active entrepreneurs compete more aggressively than the others”. This means that they are not just simply counteracting their competitors but also consistently trying to introduce some new products/services development and management techniques into their companies. (Kim, 1994) claimed that “Pro-activeness can be defined as a tendency or behavior of actively participating in the market changes one step ahead of their competitors”. (Grecuet al., 2017) claimed that “In the present economic situation, having knowledge of an academic subject is no longer sufficient to increase their employability, It is essential to have the infrastructure required to facilitate entrepreneurial mind-set and encourage self-employment”. (Kumar et al., 2020) in Indian case study of Two Brothers Organic Farms state that, Economic prosperity of a nation requires its citizens to have entrepreneurial drive and motivation to venture into self-employment arena. Through this case of a successful Indian venture, the authors have identified the elements that are instrumental behind making an entrepreneurial venture a success. (Diandra et al., 2020) state that. Entrepreneurship is a part of business existence. It shows that business is healthy when there are entrepreneurial skills.

3. Methodology

The current case investigates a single case where entrepreneur, having no any higher education and having no much more investment, establish a successful mess business. Kulkarni-Godbole mess was gaining popularity and attracting college students and residential area’s personals towards his food items.

An entrepreneur was approached by the authors to get permission for writing the success story in the form of a case. After receiving approval, three rounds of In-depth personal interviews were conducted; first in-depth personal interview was conducted for 6 to 7 hour at an entrepreneur’s workplace. The purpose of this interview was to understand the motivations for and situation of the entrepreneur decision to start the business. After the first interview, three visits were made to the mess to collect first-hand information, infrastructural facilities, and processing facilities. People involved with Kulkarni to run this business was also interviewed for deeper insight. The information provided by the entrepreneur were documented in the form of audio-recording and at some instances, especially during the field visit, it was video-recorded. Smart mobile phones with high pixel cameras were used as recording instrument. Later on, all the recordings were transcribed and the parts of interview, that authors were planning to include in the case. After each drafting, printed documents of case were sent to the entrepreneur for deletion, addition, or corrections and final information was used in relevant parts of the study. In this case study, researcher used Linear Programming Problem technique to suggest profit maximization points of business as well.

4. The Case

Mr. Kulkarni was born in Solapur. He has completed his education up to HSC at Solapur. But his parent use to work in pune in canteen. So his family shifted to pune. His family’s financial condition was not too good thus his mother run mess. He got motivated from his mother and learned cooking from his mother. He used to stand beside her and used to observe, from that cooking became his hobby. He used to work with his mother from 7th

standard. After his parents death he was only 20 years old. He took his sisters' responsibility so he came back to Solapur. He used to do job as a hotel manager at Solapur and he earned 22,000 INR (262.04 Euro or 295.77 \$) as monthly salary. He was very happy to do this job because he liked food sector since his childhood.

AKIMSS Faculty Team's Support: Mr. Kulkarni searches for good business opportunity. To open any business, he needs much investment and proper location, He had some money, but he needs some more. In this situation it is very difficult to open new business. Park, in 2010 said that, "entrepreneurs are not born but we can make entrepreneurs and trained them through education". This means that without entrepreneurship education, entrepreneurial spirit cannot be cultivated. Mr. Kulkarni contact with BharatiVidyapeeth's AbhijitKadam Institute of Management and Social Science, Solapur (AKIMSS) for business consultancy to become a prolific entrepreneur.

➤ **Location of business:** AKIMSS faculty teams suggest him locality belongs to colleges and residential area so he can provide good quality of foods to students and local persons with cheap and reasonable prize. So that he can get more and more customers to increase profitability.

➤ **Product mix:** AKIMSS faculty teams suggest him also guide him, how to increase his profit and how to expand his business with the help of product mix strategy. Currently MrGodbole runs mess, which also includes snacks and packaged items. Along with food he also provides these things in form of business so he can get some more money.

➤ **Quality:** AKIMSS faculty teams show him that how he can attract his customer by offering best quality product.

➤ **Service:** AKIMSS faculty teams guide him regarding different services. Like- during festivals, he should have to make different sweet according to festival ritual i.e. PuranPoli(Wheat chapatti stuffed with past of Chana Dal and Jiggery), TilLaddu(laddu made with sesame seed and Jiggery), Seviyan Kheer (it is a liquid formsweet dish made up with milk , suger , dry fruits andseviyan), Huggi (it is a thick liquid form sweet dish made up with Wheat and Jiggery)etc. This strategy works more effectively, now he grabs more and more customers who ordered festive food from him in mass quantity.

➤ **Reasonable product price:** AKIMSS faculty teams suggest him to provide best quality product in reasonable price, so that more customers can come to him. As customers have increased, he has also been in profit.

➤ **Social Engineering:** The Solapur (anciently called sonnalage). Solapur was ruled by various dynasties such as Andhrabhratyas, Chalukyas, Rashtrakutas, Yadavas and Bahamanis. The present city of Solapur was considered to be spread over sixteen villages viz. Aadilpur, Ahmedpur, Chapaldev, Fatehpur, Jamdarwadi, Kalajapur, Khadarpur, Khandervkiwadi, Muhammadpur, Ranapur, Sandalpur, Shaikpur, Solapur, Sonallagi, Sonapur and Vaidakwadi and all these villages are now merged with Solapur Municipal Corporation. Solapur city contains people from Andhra and Karanatak also. People speak Hindi, Marathi, Kanada, Telagu etc. AKIMSS faculty teams suggest him to adopt social engineeringconcept in his business. Meaning of social engineering is the use of centralized planning in an attempt to manage social change and regulate the future development and behaviour of a society (Source : <https://www.google.com>). His team includes every religion person. He never looked upto their cast. So they can handle every situation. He doesn't face any language problem while dealing with customers.

➤ **Profit maximization analysis using Linear Programming Problem.**

Mess has minimum 400 parcels service and minimum 500 Rice plate serving daily, mess has to increase total serving capability of mess for both service is 1200 per day. A parcel contains 2 chapatti and rice plate contains 3 chapattis. A parcel contains 2 sabji and rice plate contains 3 sabji (2 thick gravy sabji and 1 liquid sabji). For making a chapattis mess spend 3000 Rs daily and for sabji 6000 Rs daily. By serving parcel mess get 25 Rs

profit and by serving rice plate get 30 Rs profit. To maximize the profit, what strategy has been adopted by the mess?

Table 1. shows case study in tabular format.

	Parcels Service (X)	Rice Plate Service (Y)	Expenses	LPP Equation
Chapattis quantity	2X	3Y	≤ 3000	$2X + 3Y \leq 3000$
Sabji Quantity	2X	3Y	≤ 6000	$2X + 3Y \leq 6000$
Total Serving Capacity	X	Y	≤ 1200	$X + Y \leq 1200$
Current service Parcels	X	--	≥ 400	$X \geq 400$
Current rice plate service	--	Y	≥ 500	$Y \geq 500$
Profit	25	30		$Z(\max) = 25X + 30Y$

(Table 1. case study description compiled by researcher)

➤ Solution

Table 2. shows case study solution.

Equation No	Equation	Points	Shaded Region
1	$2X + 3Y \leq 3000$	X=1500, Y=0 X=0, Y=1000	Origin side
2	$2X + 3Y \leq 6000$	X=3000, Y=0 X=0, Y=2000	Origin side
3	$X + Y \leq 1200$	X=1200, Y=0 X=0, Y=1200	Origin side
4	$X \geq 400$	X=400	Non-Origin side
5	$Y \geq 500$	Y=500	Non-Origin side

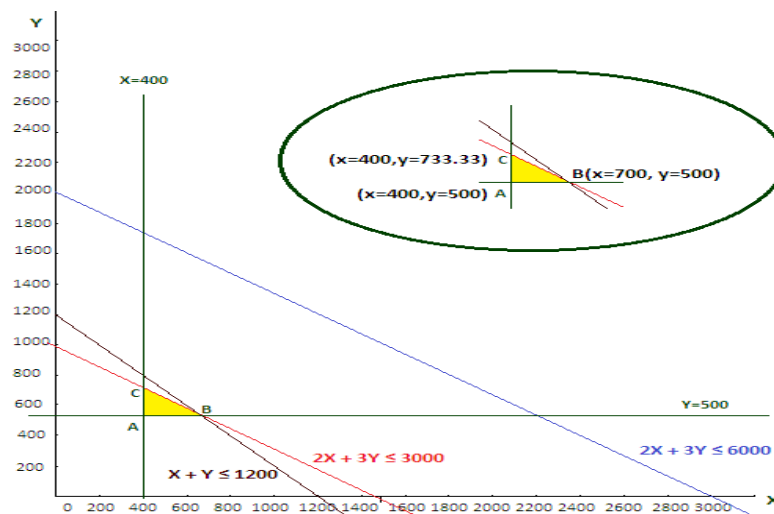
(Table 2. Compiled by researcher)

➤ Profit

Table 3. shows profit maximization points.

Feasible Points	$Z(\max) = 25X + 30Y$	Result
A (X=400, Y=500)	$Z(\max) = 25(400) + 30(500)$ $= 10000 + 15000 = 25000$	
B (X=700, Y=500)	$Z(\max) = 25(700) + 30(500)$ $= 17500 + 15000 = 32500$	Maximum
C (X=400, Y=733.33)	$Z(\max) = 25(400) + 30(733.33)$ $= 10000 + 21999.9 = 31999.9$	

(Table 3. Compiled by researcher)



(Diagram 1. LPP Graphical solution)

➤ Suggestion: Our team suggest that to increase the parcel service upto 700 unit to maximize the profit level as compare to current situation.

Challenges: When he shifted from pune to solapur, he faced lots of problem to match differences in cooking methods. People over used the bhramin pattern food. Since he belongs to konkan side, his food test is different than Solapuri test. He accepted challenge behind him and slowly learned how to make solapuri food. Now he overcome all problems and tries to provide better services to their customer and always make them happy.

Threats: Obviously every business has competition in its field; he also faced many problems while running his mess. His main motive is to provide good quality and good quantity product to the needy peoples in less profit. As customers have increased, he has also been in profit. He only believed in his business and himself, sohe doesn't consider any competition,

Kulkarni become GODBOLE: Actually Mr. Kulkarni has very good communication skill and he speaks very sweetly with his customers. Because of his sweet nature, customers come to his mess. His customer's given name to him as GODBOLE.

Turnover: Now he completed 3 years with "Kulkarni-Godbole" Kettering. His turnover for year 2019 was 3,60,000INR (4096.80Euro or4348.80\$)Rs per month and have increased in year 2020 and it is around 4,67,000INR (5314.46Euro or5641.36\$) Rs per months. In year 2021 his turnover was around 6,10,000INR (6941.80Euro or7368.80\$)Rs per months. In year 2022 his turnover was around 8,11 ,000INR (9237.29Euro or9796.88 \$) per months, but after LPP analysis it is increased by 1,49,000 (1697.11Euro or 1799.92\$) and now his turnover is 9,60,000INR (10934.40Euro or11596.80 \$) per month.

Table 4. shows turnover per month in rupees.

Year	turnover per month in rupees	turnover per Year in rupees	Amount Increased as compare with previous year.
2019	3,60,000Rs	43,20,000	-----
2020	4,67,000Rs	56,04,000	12,84,000 (29.72% increased as compare to year 2019)
2021	6,10,000Rs	73,20,000	17,16,000 (30.62% increased as compare to year

			2020)
2022	8,11,000Rs	93,32,000	20,12,000 (27.48% increased as compare to year 2021)
	Profit maximization analysis		
2022	9,60,000Rs	11,52,0000	21,88,000 (29.89% increased as compare to current situation)

(Table 4. Compiled by researcher)

Future Plan:

His team helped him out through this also, thus he have planned to put hotel to extend his business along with his workers. He have planned and working on this. He belive rich people can go to hotel, but he wish every middle class , poor people may also feel comfortable to go to hotels is his motive.

5. Analysis

It is visible from the case that Kulkarni-Godbole Kettering (mess) has got success based on following broad factors. First with regards to persona of entrepreneurs, some of the commonly known traits of successful entrepreneurs are very much visible in the Mr.Kulkarni that is his commitment and enthusiasm about mess business. Mr. Kulkarniis devoted toward making tasty food. He provide better quality food having minimum price to the college students, and nearby residential peoplesto make them satisfy and happy. Second,aroundKukarni-Godbole mess area, there are more than 6 hotels, but Mr. Kulkarni's sweet communication skill and helpful behavior attract customers towards his mess.

Third with regards to consultancy, AKIMSS consultancy teams guide him, how to double his profit and how to expand his business. Mr.Kulkarni is non graduate professional who doesn't have knowledge about resource management and fund management. AKIMSS consultancy team guides him to manage his business without any obstacle.

6. Limitation

There are several limitations, but are not limited to, the scope of this case limited to a single successful entrepreneur story. Conducting a multiple cases would have helped in generalizing the findings. Furthermore, this story is of an Indian entrepreneurial venture and may not be fully applicable to a non-Indian environment.

7. Conclusions

The case talks about the story of an entrepreneurial success where Mr. Kulkarni started their business with the help of suggestion given by AKIMSS consultancy team. He started his business by investing 20,000 INR (236.80 Euro or 268.97 \$) in the month of December 2019 at Jule-Solapur in the area of 10 by 15 square feet. After first year his business turnover has increased by 12,84,000 INR (15329.33 Euro or 16852 \$). He hired location suggested by AKIMSS consulting team to grab potential customers. The potential customers were one of the major reasons behind the success of Mr. Kulkarni because he gets customers from nearby colleges, schools, banks and nearby residential areas.

With his commitment, enthusiasm, and hard work hehas created reputed and enviable position for himself in area of Jule-Solapur, Maharashtra in INDIA. In this direction heserves his customers with happy and healthy environment. He asks likes and dislikes of his customers and tries to give them as per customers' requirement, it is very difficult to consider every customers requirement, but he can manage it with smiley face. He faced many problems while running his mess because nearby hotel owners come to him and ask "Why you provide in fewer prices while using good products and quality in cooking". But he fights with them, because his main motive is to provide good quality and good quantity product to the needy peoples in minimum profit.

Solapur city contains people from Andhra and Karanatakalso; people speak Hindi, Marathi, Kanada, Telagu etc. To avoid language barriers, he hired helper from every religion in his team. His team can able to handle customers in their mother tongue, which was one of the best attractions of Mr.Kulkarni's mess.

In year 2022 his turnover was around 8,11 ,000INR (9237.29Euro or9796.88 \$) per months, Our team work on his current profit condition and profit maximization analysis , finally suggest that to increase the parcel service upto 700 unit to maximize the profit level as compare to current situation and it is increased by 1,49,000INR (1697.11Euro or 1799.92\$) and now his turnover is 9,60,000INR (10934.40Euro or11596.80 \$) per month.

8. Funding disclosure

The authors are grateful to their employers for motivating to conduct the study. At the same time authors declare that for this case development, no funding was availed from their employer or any other funding agencies.

9. Author Contributions

Regards to consultancy, AKIMSS consultancy teams guide him, how to double his profit and how to expand his business. Mr.Kulkarni is non graduate professional who doesn't have knowledge about resource management and fund management. AKIMSS consultancy team guides him to manage his business without any obstacle. The authors have decided to approve the final work and take full responsibility for the originality of the Case.

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