

COST BENEFIT ANALYSIS OF THE INVESTMENT IN THE SHOPPING CENTERS: A STUDY OF SYLHET METROPOLITAN AREA

Khan Jahirul Islam *

Abstract

This research paper is based on primary survey on shop owner's in shopping centers at Sylhet metropolitan area during January 2009. Sample was drawn randomly from different shop owners of four shopping centers located at Zindabazar and Chowhatta area of Sylhet city. Our sample consists of four big shopping centers which were selected giving the priority on project life and size of business, named Al Hamra, Manru, Sylhet Millennium and Sylhet Plaza. This research paper carried out on that shop owner's who invest in various product such as man's and woman's wear, gold or imitation ornament, gift, cosmetics, shoes and food etc. The major objective of this paper was to illustrate and analyses their cost benefit. Benefit cost ratio analysis shows that 45.28% project is accepted and 54.72% project is rejected. In Al Hamra shopping center, 61.9% project is accepted and this percentage is 50 %, 31.57%, 28.57% respectively for Manru, Sylhet Millennium and Sylhet Plaza. In study area net yearly loss is BDT 55722.66 and out of four shopping centers two shopping centers incurs benefit and another incurs loss. Since about 55% project is rejected and net yearly benefit is negative, the investment in this sector is not so economically profitable. Econometric analysis shows that the relationship between net yearly benefit and total cash flow is negative which may indicate that total investment was larger in comparing with the size of the project.

Key words: Cost benefit, investment.

Introduction

Sylhet is an attractive zone for foreign as well as domestic investment. More than 1.2 million Non Resident Bangladeshi (NRB's) are from Sylhet, working mostly in UK and USA and contributes a major amount

of country's remittance flow¹. The NRB's are also investors and one part of the investor invests in shopping center in Sylhet metropolitan area. There are 10 luxurious shopping center located in Chowhatta and Zindabazar area (within 1 square kilometer)². The investor of Sylhet are more interested to invest in these shopping centers because they think it's a chaos less(such as no labor union, no labor collusion for wages and other facilities etc) sector. Most of the entrepreneurs don't know what is the pay back period and rate of return of their investment. Cost-benefit analysis is an analytic procedure which estimates the net economic value of a given project or business. There are 462 shops in four shopping centers. We examine 53 shops of four shopping centers and analyses their cost-benefit of investment.

Objective of the Study:

The basic objectives are as follows:

- To analyze the benefit and cost through different measures.
- To identify the determinants of benefit and loss.
- To give some policy measures.

Hypothesis of the Study:

On the basis of the fitted regression model following hypothesis is considered to test. The main hypotheses of this study are given below.

Null Hypothesis: There is positive relationship between net yearly benefit and total cash flow. That is $\beta_2 > 0$ in the fitted regression model.

Alternative Hypothesis: There is negative relationship between net yearly benefit and total cash flow. That is $\beta_2 < 0$ in the fitted regression model.

Data and Methods:

This research is to identify cost benefit analysis of the investment in the shopping center in Sylhet Metropolitan area, where the collection of primary data is involved, requires selection of an area which would offer a scope to fulfill the objectives of the study. Data was collected from different old shopping centers in Sylhet metropolitan area to find out the cost benefit of investment. With a view to gaining qualitative and quantitative information data are taken randomly from four shopping centers of Sylhet city. Out of a total 53 sample of shop owner 9

¹Kabir, Ruma et al (2005), *Industrialization in Sylhet: Problems and Prospects*, Seminar Article, SUST

² Authors Field Survey, 2009.

respondent's engaged in man's wear business and respondents are 13, 17, 4, 3, 1, 1 and 5 respectively engaged in woman's wear, imitation, electronics, home decoration, gift item, food and others (cosmetics, shoes and photography) business. Tabular, statistical as well as econometric techniques were applied to analyze the data.

Analytical Techniques

There are three techniques, tabular statistical and econometric were used for analyzing data. A tabular technique is the technique that is commonly followed to find out the creed association or difference between variables. Statistical techniques about project analysis require widely used core method such as Benefit Cost Ratio (BCR); represents the present value of benefit per taka outlay for initial investment. The formula of Benefit Cost ratio (BCR) ³ is as follows:

$$BCR = \frac{\sum_{t=1}^n \frac{PVB_t}{(1+r)^t}}{I}$$

Where, n=Life of business

r =Discount rate

PVB= present value of benefits

I= Initial investment

When $BCR > 1$, $BCR < 1$ and $BCR = 1$ then we can take decisions are project accepted, rejected and indifferent respectively.

Specification of the model:

To find out the determinants of benefit the following multiple linear regression model have been used.

$$Y = \beta_0 + \beta_1 BUSLIF + \beta_2 TOTCASHF + \beta_3 TOTSALLES + \beta_4 EDUQULI + \beta_5 POSSESS + \varepsilon_i$$

Here,

Dependent Variable:

Y = Net Yearly Benefit

Independent Variables:

BUSLIF= Business Life

TOTCASHF = Total Cash Flow

TOTSALLES = Total Sales

EDUQULI = Educational Qualification and Year of Schooling

POSSESS = Possessions

Results:

Linear Regression Model of the determinants of net yearly benefit:

Results of the estimation of the linear regression model on the net yearly benefit can be seen below.

Table 1
(Linear Regression Model of the determinants of Net Yearly Benefit)

Variable	Regression Coefficient	t-value	Significance
(Constant)	-376933	-1.495	0.142
Business Life (BUSLIF)	35791.178	1.993	0.052
Total Cash Flow (TOTCASHF)	-0.980	-39.217	0.000
Total Sales (TOTSALLES)	0.910	27.967	0.000
Educational Qualification and Year Of Schooling (EDUQULI)	13538.587	0.802	0.427
Possession (POSSESS)	7903.278	0.0690	0.945
R² = 0.972 and F = 331.871 F Significance = 0.000			

Our analysis shows that there is a negative relationship of net yearly benefit among with intercept term and total cash flow. Business life, total sales, educational qualification, possessions are positively related with net yearly benefit. The intercept term refers to net yearly loss is BDT 376933. The relationship between net yearly benefit and total cash flow is negative, which may indicate that total investment was larger in comparing with the size of the project. Shop owners get benefit by the amount of BDT 35791.178 for running extra one year business. Educational qualification and net yearly benefit's relationship shows if the year of schooling rises by 1 year then net yearly benefit rises by the amount of BDT. 13538.587. If the investor did not take possessions he could earn extra benefit of BDT. 7903.27.

R² = 0.972, meant that 97.2% of variation of the dependent variable is explained by the independent variables included in the model which shows a excellent goodness of fit of the model. The significance value of

³ See Page: 193; Projects, Prasanna Chandra, Fifth Edition, 2006

F shows the model is significant at each level of significance (at 1%, 5%, and 10%).

Shopping center name	Net yearly benefit(BDT)	Profit (%)	Loss (%)
Al Hamra	153172.85	61.9%	38.09%
Manru	11410.18	50%	50%
Sylhet Millennium	-190893.24	31.58%	68.42%
Sylhet Plaza	-373059.95	28.57%	71.43%
Total	-55722.64	100	100

Test of hypothesis:

't'-value of the regression coefficient of total cash flow is significant at 1, 5 and 10 per cent level. So we can say that our null hypothesis may be rejected. So we may accept our alternative hypothesis, implying that there is a negative relationship between net yearly benefit and total cash flow.

Information of shopping center-wise average of initial investment, cash flow and cost:

Table 2 shows the averages of initial investment to starting a business, average of total cash flow and cost generated in different category of business in the different shopping centers. There are four items (possession's money, trade license, security money and decoration cost) include in initial investment and the highest initial investment in Al Hamra shopping center. Different types of category of business and costs (rent, salary, allowances, electricity\water bill, tax bill, security charge, facility charge and others) involve to operating a business in shopping center. Overall nine category of business operate in these four shopping centres; and yearly average cash flow and total cost is highest in Al Hamra.

Table 2: Shopping center wise average of initial investment, cash flow and cost (BDT)

Shopping centre name	Average Initial Investment	Average Cash Flow (yearly)	Average Cost (yearly)
Al Hamra	869454.76	2482641.90	2715057.54

Cost Benefit Analysis Of The Investment In The Shopping Centers

Manru	351695.83	758410.50	801813.88
Sylhet Millennium	441273.68	1782983.95	1879428.81
Sylhet Plaza	99450.00	1247867.43	1282474.24

Source: Field Survey, 2009

Average Net Yearly Benefit:

Out of four shopping centers two shopping centers (Al Hamra and Manru) incurs benefit and another (Sylhet Millennium, Sylhet Plaza) incurs loss. 61.9% investors earning profit in the Al Hamra shopping center which is the highest proportion and lowest proportion is 28.7% in Sylhet Plaza. This percentage is 50% and 31.58% respectively for Manru and Sylhet Millennium (Table 3).

Table 3: Shopping center-wise average net yearly benefit (BDT)

And percentage of profit/ loss

Cost benefit analysis of investment: A real scenario

Analysis (in table 4) shows that 24 respondent's BCR are greater than 1 (> 1) and 29 respondent's BCR are less than 1 (< 1). It also depicts that 45.28% respondents reveal their opinion and they are benefited from their business project. The remaining 54.72% respondents are not benefited from their business out of 53 respondents. Al Hamra's 61.9% project is accepted and 38.9% is rejected.

Table 4: Acceptance \rejection of project based on BCR

Acceptance \rejection	Al Hamra	Manru	Sylhet Millennium	Sylhet Plaza	Total
Project Accepted	13 (61.9%)	3 (50%)	6 (31.58%)	2 (28.57%)	24 (45.28%)
Project Rejected	8 (38.09%)	3 (50%)	13 (68.42%)	5 (71.43%)	29 (54.72%)
Total	21	6	19	7	53

Source: Field Survey, 2009

Conclusion and Policy Recommendation

The main aim of this study was to find out the cost and benefit of investment of the shop owner in the Sylhet metropolitan area and to find out benefit cost ratio (BCR) of their investment. Here this study focuses

on ideas that “Are the shop owner beneficiaries or losers after investing in shopping center?”

In our analysis we can see that two shopping centers are positively benefited from their investment while rest of two is not. At last we see that the shop owners of four shopping centers are fall in loss every year.

Policy recommendation:

In the occasional time (Eid and puja) their daily sales rises more than fifty percent whereas fall down others time of the year. Some problem likes excess shopping center; high level of total expenditure, whole sale price hike etc. raises the loss of investment. So some policy implications emerge from the result of this research. Several recommendations are highlighted below-

1. Since about 55% project is rejected and net yearly benefit is negative, the investment in this sector is not so economically profitable. So the investor of Sylhet can choose another option to invest such as industrial sector. The garments sector in our country is a profitable sector. So the investor can take an opportunity to invest in garments industry which is profitable to the investor and government can earn more foreign currency. Not only export earnings but also employment opportunity will create in this sector.
2. Government can take step to reform policy and take new investment friendly policy for Sylhet region, specially concentrated in production sector.
3. All commercial bank operated in Sylhet region can provide business loan with low interest rate only for prominent investors.
4. Government or concerned authority can restrict to build up shopping center in a busy commercial area. If any investors are interested to build up shopping center, he will go besides the town to establish, that expands the city area. Then the investor of shopping center will not fall in loss day by day.
5. This research is based on a small-scale survey with only 53 sampling data at Sylhet metropolitan area. Therefore, findings on the sector of shopping center and policy discussions above are very tentative in nature. To provide more definite evidence, both qualitative and quantitative, a further research is needed, which is based on an extended survey.

In short, investors in this sector should be cautious and the concerned authority also should take proper steps to make good policy to make this sector as a more profitable and attractive sector.

References

Gtz (2005) “*Investment Opportunities in the Sylhet Region*”.

Kabir, Ruma et al (2005) “*Industrialization in Sylhet: Problems and Prospects*”, seminar article, SUST

Jahan, Alamgir and Hossain, Anwar et al (October, 2005) “*Investment in Sylhet: Opportunities and Challenges*”, Seminar paper, Department of Business Administration, SUST.

Simmonds, Jennifer and Flaherty, John (January 2000) “*Simulating Shopping Centre Returns*” RMIT University, Australia. Paper Presented at Pacific Rim Real Estate Society Annual Conference.

Phelps, Jeffrey (March 7, 2003) “*Cost/Benefit Analysis of Closing the Gaps*” Division of Finance, Campus Planning, and Research, Texas Higher Education Coordinating Board.

Harwood, J. Henrick and Malhotra, Deepti et al (June 2002) “*Cost Effectiveness And Cost Benefit Analysis Of Substance Abuse Treatment*”, Center for Substance Abuse Treatment (CSAT).

FOLTÝNOVÁ¹ Hana and BRAUN KOHLOVÁ² Markéta (2002) “*Cost-Benefit Analysis Of Cycling Infrastructure: A Case Study Of PILSEN*”, Charles University Environment (Prague).

Professor Hough J R “*Educational cost-benefit analysis*” (1993), Loughborough University, Paper No. 02, 1993.

Proosta, S and Loob, Van der (September 2005) “*A cost-benefit analysis of tunnel investment and tolling alternatives in Antwerp*”, Belgium.