



**INFLUENCE OF INVESTMENT APPRAISAL TECHNIQUES ON FINANCIAL
PERFORMANCE OF SMALL MANUFACTURING FIRMS IN KENYA: A SURVEY OF
THE JUA-KALI SECTOR IN KISII TOWN**

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Abstract

Past studies show that technological innovations and hybrid system of management of business enterprises has seen quite a number of small manufacturing firms close shop while those in operation are struggling with stiff competition from new entrants who have stringent measures in their investment processes. Further their contribution towards the economy is dismal and wanting. This study established the influence of investment appraisal techniques on financial performance of small manufacturing firms in Kisii town, Kisii County, Kenya. The target population of study was 454 respondents from small manufacturing firms in the Juakali sector, Kisii town. A sample size of 136 respondents was used selected using stratified random sampling technique. Descriptive statistics was used to analyze data collected. The study findings revealed that small manufacturing firms largely rely on non-discounting investment appraisal methods to assess their investments in the industry which in turn affected their performance; investment appraisal techniques had a positive relationship with financial performance of small manufacturing firms.

Key Words: Investment Appraisal, Manufacturing Firms, Performance

1. INTRODUCTION

Investment appraisal techniques are considered paramount to any investment project to be undertaken. Investors employ experts to carry out evaluation on projects conceived before investment decisions are made. The main objective here is to maximize the organization's profits and optimizing the return on investment. This can be done by increasing revenues and reducing costs. As a matter of fact therefore, research carried out on a number of countries reveal that growth of firms largely depends on evaluation criteria employed. A firm's decision to invest in long-term assets has a decisive influence on the rate and direction of its growth (Pandey, 2011). Various studies have been conducted for instance; a study conducted on the impact of investment appraisal techniques on the profitability of small manufacturing firms in the Nelson Mandela Bay Metropolitan Area, South Africa posits that capital budgeting decisions are crucial to a firm's success for several reasons. Firstly, capital expenditure typically requires large outlays of funds. Secondly, firms must ascertain the best way to raise and repay these funds.

Farragher et al. (1999) assert that the effective allocation of a firm's resources is a key to firm success. Most theorists such as Anordl (1998) holds that the effective allocation of resources can be best achieved through a sophisticated capital investment process. Such a process will enhance the probability of making good investment decisions by helping to ensure that a corporate strategy is followed, that all investment opportunities are considered and that ad hoc decision making is minimized. More accurate and reliable capital budgeting is needed by smaller firms if they are to grow, remain competitive and optimize the value of the firm. In addition, financial management theory advocates that the use of sophisticated capital budgeting system enhances firms' performance. Neglecting appraisal models and turning to the rule thumb methods may certainly mislead the decision making process. It may also endanger the value of shareholders by erroneously accepting projects that do not add value (Gifford 2001).

The manufacturing sector receives this major focus as it largely promotes economic growth and competitiveness in the country. It is among the leading sectors contributing to GDP. In Kenya, small scale enterprises are acknowledged as vital and significant contributors to economic development through their critical role in providing job opportunities, reducing poverty levels and nurturing the culture of entrepreneurship and are a vital link in the economy through their supply chain and intermediary role, in trade (Oketch, 2000). As highlighted in the economic survey of 2006, small scale enterprises contributed over 50% of new jobs created in the year 2005 and over 20% to the GDP of the country. In recognition of this indispensable role, the government has instituted enterprise support programmes like Youth and Women Enterprise Funds to help advance these enterprises. Despite their significance and government efforts to fully blow small scale enterprises operations, past statistics indicate that they exhibit high birthrates and high death rates with 40% of the start-ups failing by their second year and at least 60% closing- shop by year four. (Kenya National Bureau of statistics, (2007); Fina Bank Report, 2007). Also a study by Bowen et al. (2009) established that up to 50% of the small businesses in operation have a deteriorating performance and are said to stagnate at "Small' level hence do not

progressively grow into medium or even larger enterprises as envisaged in their conceptual plans.

2. STATEMENT OF THE PROBLEM

The Kenya National Bureau of Statistics (2007) found that 3 out of 5 small businesses fail within the first few months of operation and those that continue 80% fail before the fifth year. However, it is not clear the extent to which these inadequacies observed in small manufacturing firms can be linked to investment appraisal techniques. This study therefore sought to establish the influence of investment appraisal techniques on the financial performance of small manufacturing firms in Kisii town.

3. OBJECTIVES OF THE STUDY

The study was guided by the following specific objectives:

- i. To establish investment appraisal techniques used by small manufacturing firms.
- ii. To find out the extent to which investment appraisal techniques used influence financial performance of small manufacturing firms and
- iii. To establish the relationship between investment appraisal techniques and financial performance of small manufacturing firms in Kisii town, Kenya.

4. RESEARCH METHODOLOGY

The study was a descriptive survey study design of 454, small manufacturing firms which were operating in Kisii town, Kisii County, Kenya. A survey study was suitable as it portrays an accurate profile of situations thus was used to collect information from members of the target population in order to determine the current state of affairs as they exist in that population with respect to one or more variables. The study's target population was 454 respondents with 231 managers from welding, 136 managers from carpentry and 87 managers from textile firms. These respondents were directly involved in the operations of these small manufacturing firms. The study sample size was 136 respondents which represents 30% of the target population. The 136 respondents in the sample comprised of 69 welders, 41 carpenters and 26 tailors. Data collected was analyzed using descriptive statistics. This involved use of percentages and frequency tables that clearly assessed the extent of relationship between variables under study.

5. RESULTS AND DISCUSSION

The study established the duration of operation of the various small manufacturing firms under study to be able to draw viable conclusions. The results were as displayed on table 1.

Table 1 Age of Business

Age of Business	Tailoring		Welding		Carpentry		Total
	Quantity	%	Quantity	%	Quantity	%	Quantity
1 year	05	20.00%	12	17.92%	11	26.83%	28
2-3 years	12	48.00%	33	49.25%	18	43.90%	63
4-5 years	03	12.00%	13	19.40%	07	17.07%	23
6 and above years	05	20.00%	09	13.43%	05	12.20%	19
	25	100%	67	100%	41	100%	133

The results here indicated that 20% of tailoring firms are in year one in their operation, 48% in year 2-3, 12% in year 4-5 while 20% are in their sixth year of operation. The largest percentage fall on year 2-3 while the least percentage are in year 4-5. Welding firms under year one of their operation are 12 out of 67 firms which is 17.92%, 33 firms (49.25%) are in year 2-3, 13 firms (19.40%) are in their year 4-5 while 9 (13.43%) firms have made it to their year 6 and above. Similarly, the largest quantity of small manufacturing firms is in year 2-3 of their operation. Carpentry firms in year one of their operation are 11 (26.83%), year 2-3 18 (43.90%) firms, year 4-5 07(17.07%) firms while 05(12.20%) firms are in the sixth and above years. Like in the welding firms the highest quantity of firms are in their 2-3 years of their operation. The sixth year onwards has the least quantity in operation. This result depicts that very few firms make it to year four of their operation as the 63 firms in year 2-3 reduce to 23 firms in year 4-5. This confirms existing empirical evidence that 75% of small manufacturing firms in Kisii town collapse shortly after their inception.

Table 2 Investment appraisal Techniques employed by small manufacturing firms.

Investment Appraisal Technique	Tailoring		Welding		Carpentry		TOTAL	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%
Net present Value	02	8.00%	04	5.97%	06	14.63%	12	9.02%
Internal Rates of return	00	00.00%	0	00.00%	00	00.00%	0	0.00%
Profitability Index	02	8.00%	05	7.46%	05	12.20%	12	9.02%
Payback period	17	68%	40	59.70%	27	65.85%	84	63.16%
Accounting Rate of return	04	16%	18	26.87%	03	7.32%	25	18.80%

TOTAL	25	100%	67	100%	41	100%	133	100%
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Results tabulated on investment appraisal techniques indicates that 02 (8.00%) tailoring firms ,4 (5.97%) welding firms and 6(14.63%) carpentry firms employ net present value techniques in their investment process. Internal rate of return remain unexploited by all firms while 2 (8.00%) of tailoring firms 5 (7.46) welding firms and 5(12.20%) carpentry use profitability index. Non-discounting technique payback is the main tool used by the three categories under study. 17(68.00%) tailoring firms, 40(59.70%) welding firms and 27(65.85%) carpentry firms make use of payback technique in their investment decision making process. Accounting rate of return under non discounting techniques is also made use of by some firms in their decision making. 4(16.00%) tailoring firms, 18(26.87%) welding firms and 3(7.32%) carpentry firms use accounting rate of return. Therefore, the small scale manufacturing firms under study largely (63.16%) prefer using payback techniques in their decision making process as far as decision making process is concerned. The findings confirmed works of Van Horne (2006) who conducted a study to establish the investment appraisal techniques employed by firms. He found out that payback period is considered one of the most popular and widely used traditional methods of evaluating investment opportunities. Similarly, Chandra (2002)in his study on 20 Indian firms of varying dimensions like industry, category's size and financial performance, confirmed that the most commonly used method for evaluating investment of a small size is the payback method. This could be associated to the limited financial resources available to small manufacturing firms for investment. They opt for projects with a short payback period.

The study established the influence of investment appraisal tools on investment decisions by small manufacturing firms. The results are as in table 3.

Table 3 Investment Appraisal Tools Influence on Investment decisions

Investment Tool	Not Influential 1	Less Influential 2	Moderately Influential 3	More Influential 4	Most Influential 5
Internal Rate of Return (IRR)	0.00%	10.53%	76.69%	9.77%	3.00%
Net present value(NPV)	0.00%	3.76%	12.18%	18.05%	7.56%
Pay back (PB)	0.00%	2.26%	48.12%	45.86%	3.76%
Profitability Index (PI)	0.00%	0.75%	78.95%	15.79%	4.51%
Accounting	0.75%	3.76%	75.94%	15.79%	3.76%

Rate of return
(ARR)

From the responses displayed above, it is clearly indicated that the highest number of respondents consider investment appraisal tools as moderately influential to investment decision of small manufacturing firms. Only a very insignificant percentage rates these tools less influential. Profitability index has the highest percentage of respondents 78.95%, internal rate of return 76.69%, accounting rate of return 75.94%, net present value 72.18% and payback 48.12% on moderately influential. This implies a high dependence on these techniques by small manufacturing firms even as other factors also count in their financial standing. Nevertheless, there is a positive relationship between the investment techniques and investment by small manufacturing firms. Farrgher et al. (2001) noted that a positive relationship exist on a firms performance and investment appraisal techniques adopted. However, his study focused on large firms that were found to extensively use sophisticated capital appraisal techniques. The findings here indicate that the positive relationship is moderately influential while other respondents term it more influential.

Given the fact that different firms employ various tools in appraisal, the study sought to find out what determines the type of appraisal tool used. The table 4 below displays the findings.

Table 4 Determinants on Investment Tools used

Determinant.	Tailor		Welder		Carpenter.	
	Frequency	%	Frequency	%	Frequency	%
Management Style	00	0.00%	00	0.00%	00	0.00%
Funds Available	13	9.77%	50	37.59%	30	22.56%
Educational level	12	9.02%	12	9.02%	10	7.52%
Estimated Life of Investment	00	0.00%	05	3.76%	1	0.75%

From the table above, 13(9.77%) tailor respondents give funds available as a determinant while 12(9.02%) consider education level as the determinant. Welder responses show that 50 (37.59%) consider funds available, 12(9.02%) education level and 5(3.76%) consider estimated life of investment in choosing the tool to be employed . 30(22.56%) carpenter respondents take funds available as the determinant , 10(7.52%) take education level while only 1(0.75%) respondents settle on the life of the investment. Total respondents on the funds available is 93(69.92%), 34(25.56%) take education level as a determinant and 6(4.51%) respondents take the estimated life of investment. It is thus clear that funds available for investment are the main determinant. This therefore translates to focus on projects that will have a shorter payback period so as not to lock up the limited capital by small manufacturing firms. Capital resources drive firms to use appraisal methods that can enable them establish their liquidity state in their investment

alternatives. Runyon (1983) in his study of manufacturing firms and their usage of investment appraisal techniques posits that small firms tend to be cash oriented. They are mainly concerned with basic survival, so they tend to look at expenditures from the stand point of their near term effects on cash. According to the study findings, there is great influence by investments appraisal techniques on investment opportunities by small manufacturing firms. Their usage is termed as positively influential on the financial performance of small manufacturing firms. To a large extent, respondents rate all of them as moderately influential, more influential and most influential, a relatively small percentage. Nevertheless the relationship between the independent variables; the methods and dependent variable; financial performance of a small manufacturing firm is strongly positive. This implies that their usage cannot be underrated by small manufacturing firms. The findings revealed that determinants of methods of employment in investment appraisal process are largely funds available 69.92% and education level 25.56%. Management style has no impact on methods used as most small manufacturing firms are individually owned and managed.

The study established the influence of the techniques on performance of small manufacturing firms. The results obtained were presented as in table 5 below

Table 5. Influence of Investment appraisal tools on investment opportunity's actual returns.

Investment Tool	Not Influential '1'	Less Influential '2'	Moderately Influential '3'	More Influential '4'	Most Influential '5'
Internal rate of return (IRR)	0.75%	13.53%	58.65%	18.80%	8.27%
Net Present Value (NPV)	0.00%	3.00%	42.11%	33.83%	13.53%
Pay back period (PBP)	0.00%	9.02%	48.87%	24.81%	17.29%
Profitability Index	0.00%	4.51%	60.15%	27.82%	7.52%
Accounting Rate of Return ARR	0.00%	3.76%	36.84%	42.11%	9.77%

The results displayed on the rate of influence by investment appraisal tools on investment opportunities' actual return show that only 0.75% of respondents consider internal rate of return not influential. 13.53% of the total respondents consider internal rate of return less influential, 58

.65% take it as moderately influential, 18.80% more influential and 8.27% consider the technique most influential. Net present value is rated as 3% less influential, 42.11% moderately influential, 33.83% more influential and 13.53% most influential. Payback period is rated as less influential by 9.02% respondents, 48.87% moderately influential, 24.81% more influential and 17.29% rate it as most influential. Profitability index is rated as less influential by 4.51% respondents 60.15% moderately influential, 27.82% more influential and 7.52% most influential. 3.76% respondents consider accounting rate of return less influential, 36.84% moderately influential, 42.11% more influential and 9.77% most influential. It is evident that largely, respondents acknowledge the existence of some level of influence from investment appraisal methods in relation to their investment actual returns. The highest percentage rate these methods as moderately influential hence a close relationship between investment tools and investment opportunity's actual returns.

6. RESULTS AND DISCUSSION

It is evident from the findings that small manufacturing firms use both discounting and non-discounting appraisal techniques in their investment process. However, they largely rely on the non-discounting technique, payback. This concurs with Denson (1993) that small manufacturing firms extensively employ non-discounting cash flow methods as compared to large firms. This has a negative effect on their financial performance as it ignores the time value of money. The study noted that investment appraisal techniques greatly influence financial performance of small manufacturing firms. Investors apply these techniques to arrive at viable investment options. Lack of their appropriate application could mean uncertain and risky investment opportunities on the part of small manufacturing firms. Both discounting and non-discounting techniques are influential although the small manufacturing entities largely employ non-discounting methods. The exit of a large percentage of small business entities by the third year of their operation is as a result of poor forecasting brought about by inferior methods of appraisal. Field findings also revealed that investment appraisal tools have a positive relationship on investments by small manufacturing firms. A large percentage of respondents indicated that these techniques moderately influence financial performance of investments undertaken by managers of small manufacturing firms. They are able to settle on a foreseeable better actual return increasing chances of success in their operations.

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