**FINANCIAL AND BUSINESS MANAGEMENT FOR ROAD CONTRACTORS**

**MODULE ONE SESSION NINE PARTICIPANTS’ NOTES**

**FINANCING ROAD CONSTRUCTION BUSINESS**

**1.0 Purposes of Session**

The purposes of this session are:

1. To enable trainees to identify the funding needs of a construction business and possible sources of capital and to make them aware of the cost of capital
2. To introduce participants to finance risk and its effect on profitability and to the decision whether to borrow to finance projects.

**1.1 Funding needs**

Any business requires funds to operate. Many a time the proprietors do not pay adequate attention to the funding needs of the business. The owners themselves may not have adequate resources and tend to use only what they have instead of to plan and ensure that the business is adequately capitalized with funds from different sources. A contracting business will have the following typical capital needs:

1. Establishment of infrastructure:

As the business grows in size it will require infrastructure that may include land, administrative buildings, workshops, parking space and work related sites. The easiest way to have these available is by renting them. However the nature of construction business is such that there are not many rentable properties that have the kind of spacious facilities needed by the business. If the business is new, there could be set up costs to be incurred before the business starts to do any work. Such costs would include pre incorporation costs, feasibility studies, salaries and wages of initial management staff and other administrative expenses, such as rent, vehicle running etc, before commencement of business.

1. Acquisition of fixed assets, tools and equipment:

Again at commencement of a road construction business the proprietors need to study the kind of fixed assets that are needed to run the business. The assets will be administrative and operational. The administrative fixed assets will include furniture and office equipment as well as vehicles for administration and support staff. Operational fixed assets will include such equipment as tippers, wheel loaders, graders and tools. Road construction requires many heavy items of equipment all of which the business may not need to purchase. Some of them are only used for short periods only.

The business should identify the core equipment that it must own and the rest of the equipment that may be hired as and when necessary. The business should bear in mind that owning the equipment also means hiring staff to operate them. The decision as to what equipment to own will also depend on the scope of work the business enjoys and what it foresees in the future.

1. Funding of working capital including:

Working capital will include work in progress (WIP). This is composed of the sum total of expenditure incurred to bring work to its current state before it is certified and invoiced. Such costs will include materials, labour, machine hire and running costs, direct and indirect overheads over the relevant period. Work in progress will constitute a large part of the working capital requirement and will increase rapidly with the length of the period before certification is done. For example if billing is done weekly, the WIP will be the cost of works for a week, and if it is done monthly, WIP will increases by a factor of four.

The next element of working capital will be the trade receivables. Receivables are works that have been certified and invoiced but that are not yet paid for. Cash will be tied up with the client until the client pays for it. The longer the period of credit allowed to the client the larger the amount of capital required to finance it. The capital requirement however will reduce to the extent client has made a deposit or some advance payment.

The next major component of working capital is the inventory. Contractors will hold an inventory of a wide range of construction items such as raw materials, consumable stores, fuel, spares and others. These items are held to ensure smooth flow of works considering their procurement cycle and for strategic purposes to avoid work stoppages. Investment in inventory may be reduced to the extent the items are supplied on credit. For example if the business holds inventory equivalent to two months usage, only one month’s stock will be financed if the business had a one month credit period.

Lastly a business requires some buffer cash reserve. A minimum cash reserve may be expressed in number of days operating costs. For example the business may determine to hold a minimum cash reserve equivalent to two weeks operating costs. The more conservative management is the longer the period, and the more the amount required.

The sum total of all these items will constitute the working capital requirement (netted off with suppliers credit and clients advances).

**1.2 Sources of capital**

The following are the main sources of capital for a business:

1. Owners’ capital:

 Shareholders or owners capital contributes the first source of venture capital. Owners have faith in their business and risk their money in order to make the business operate with the expectation of making a profit out of the investment. For a company, this capital is permanent and may only be lost through trading or by repayment to the shareholders if the company is wound up.

1. Retained earnings and reserves:

 These are profits accumulated and retained over time. The simplest source of capital for a running business is from making profits from its trading activities and capital gains. Profits once made are subjected to taxation and net of taxation the balance remains for owners. Once made, the business will make a decision whether to pay them to the owners as dividends (or drawings) or to keep them in the business. For a business to grow it must retain some of its profits to finance new construction projects and to meet increased capital requirements. The balance between how much to pay out and how much to retain (The Dividend Decision referred to in Session 6) will depend largely on the opportunities available to the business and the nature of the shareholders of the business; whether they need regular cash or are content with capital gains on their investment.

The total of the shareholders capital and retained profits and reserves is collectively called equity. It signifies the owners’ accumulated interest in their business. Equity has a cost (called an opportunity cost) since the owners can take it out and use it for alternative investments.

1. Loans:

Loans could be obtained to finance the capital needs of a business. It is common to find directors loans in many upcoming businesses. For private or family businesses, usually loans from directors are interest free or at subsidized interest. They are there to enhance capital but are repayable after some time. Many times they are converted to share capital if the business decides it needs the funds on a permanent basis.

Loans however are commonly obtained on a long term basis from financial institutions usually banks. Term loans charge interest and have regular repayment terms such that they reduce over time. The repayments are usually fixed instalments repaid monthly or quarterly. The cost of capital for term loans is the coupon interest rate less the taxation percentage. For example if the coupon interest rate is 20% and the corporation tax rate is 30%, the cost of capital of that loan is 20% x (100-30) which is equal to 14%. The cost of capital is lower because loan interest is a deductable tax expense.

Other sources of capital are trading credit already covered under working capital plus short term facilities from a financial institution in form of overdraft and advance payments.

**1.3 The cost of capital**

Different sources of capital have different associated costs. The cost of equity is the opportunity cost of alternative investments. It can be estimated by: (risk free return + a premium for risk), where risk free return is the return payable on say government bonds (treasury bonds).The cost of debt is the rate charged on the debt adjusted by the taxation rate. As explained earlier the cost of debt with an interest rate of 20% and corporation tax rate of 30% is 14%.

**1.4 Cost of capital under gearing**

When a business introduces debt in its capital structure, the results is usually to reduce the cost of capital and increase the finance risk. A business that has equity and debt capital is said to be geared. Gearing is low if the ratio of debt to equity is low. Gearing is high if the ratio of debt to equity is high. A company with a 5:2 equity debt ratio is low geared while one with a 5:10 equity debt ratio is highly geared.

Where there is equity and debt the cost of capital is the weighted average cost of capital contributions. For example, suppose the cost of a risk free bond is 20% and the business risk premium is 10% then the cost of equity would be 20%+10%= 30%. Suppose that the business has a capital of shs 500m. If the business was fully funded by equity, the cost of capital would be 28%. But suppose the business decides to use equity of shs. 300m and borrows shs. 200m at an interest rate of 32%, then the cost of capital would be equal to (30%x300/500) + (32%x0.7)x200/500. This equals (18+8.96) say 27%.

By introducing debt, the cost of capital has reduced from 30% to 27%. The higher the gearing the lower the resultant cost of capital. Therefore, gearing increases risk but reduces the cost of capital. A business increases its finance risk when it borrows but at the same time it increases its profitability.

**1.5 Borrowing decision to finance a project**

A business may borrow to finance a project if the cash flows of the project yield a positive net present value when discounted using the cost of capital as the discounting factor. Put differently, if the internal rate of return (IRR) of the project cash flow is larger than the business’ cost of capital.

**1.6 Discussion topics**

1. Identify the basic requirements for Munaku to setup a simple gravel road construction unit with a capacity of 24kms/year.
2. Identify the type of capital needs and possible sources for a medium road construction business with capacity of 24kms/year.
3. Work out the average cost of capital for Munaku. State what capital structure you would chose for his new venture and explain why.
4. Study the projects available to Munaku and advise whether you would borrow to undertake them and state why. (Assume borrowing rate is 25%)
5. Explain why road contractors may find it difficult to obtain adequate capital funding.