LITERATURE REVIEW BY SOFTWARE DEVELOPMENT SERVICES

This paper reviews information gathered from various sources of literature. The first section provides information about financial accounting. The section gives information about management accounting. The third section produces information about the relationship between financial accounting and management accounting. Measurement standards used in accounting are reviwed in the fourth section. The fifth and the last section describes various options for treating accounting events, the regulation about disclosure of financial information by government regulatory bodies and audit of financial statements by qualified and approved accountants

2.1 Financial Accounting

Accounting is an independent entity that has unending life, constant monetary unit and set intervals for reporting. Independent entity means a separate body that treats accounting transactions separate from its owners. It assumes that receiving of money from owners is either capital or equity and that all other amounts received are either loans, payables or revenues. Similarly payments of money to owners are either profits or dividends and that all other amounts paid are advances, receivables or expenditures (Eshai 2005).

Unending life refers to the assumption that accounting process continues until an accounting entity is closed or shut down. Constant unit of money is the reflection of value of money in any one of the standard currency such as British Pounds. Set intervals imply that the summaries and reports of an accounting body are prepared at the end of a set period such as monthly, quarterly, six monthly and annually (Eshai 2005).

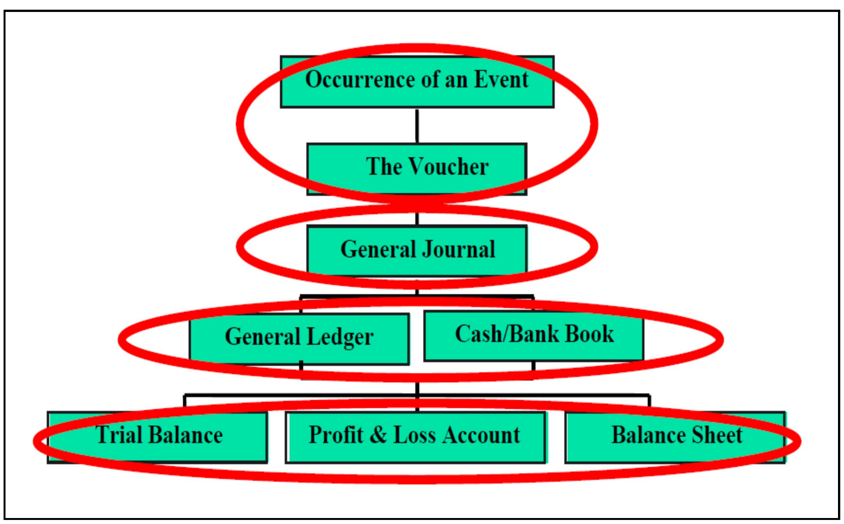
Ownership

The individual, group, company, nation or corporation whosoever owns accounting entity are its owners and the ownerships identify this accounting body by assigning a name. If an ownership of accounting entity is by an individual, it is referred as proprietorship. If two or more people have ownership it is referred as partnership. If the ownership of accounting entity is shared in the form of share, generally called a company's stock, it is referred as a private limited or a public limited company. The shares in private limited companies are owned by individuals or group of people. The shares in public limited companies are owned by general public and it is available for trading in the stock exchange markets. If ownership is by government it is referred as government corporations, bureaus or organizations. If ownership is by philanthropists it is referred as non-governmental organizations (NGOs) (Eshai 2005).

Record keeping

The accounting entity keeps record of every single transaction carried out by it irrespective of its type of ownerhsip. Figure 1 illustrates the flow of accounting transaction (Eshai 2005).

Figure 1: Illustrates the flow of accounting transaction (Eshai 2005)



Mostly all the transactions of an accounting entity revolve around receipt and payment of cash, goods, and services. scope of cash includes all money, bank accounts, and credits. The scope of goods includes all goods including inventory, machinery, commodities, ingridients, parts and so on. The scope of services includes all expenditure paid as salaries, utility bills, wages, rent, repairs, maintenance, subsrciptions and so on. These wide varities of transactions are recorded on basic accounting principles and standards (Eshai 2005).

Basic Tasks

The basic tasks of keeping accounts begin with the creation of account heads. Each account head has attributes of title, number, date of opening, its association to a group and two sides Debit and Credit commonly called Ledger. A ledger account layout is illustrated in Figure 2. The standard accounting groups include Assets, Capital, Equity, Liabilities, Revenue, Expenditure, Purchase, and Sales (Eshai 2005).

Figure 2: A ledger account layout (Eshai 2005)

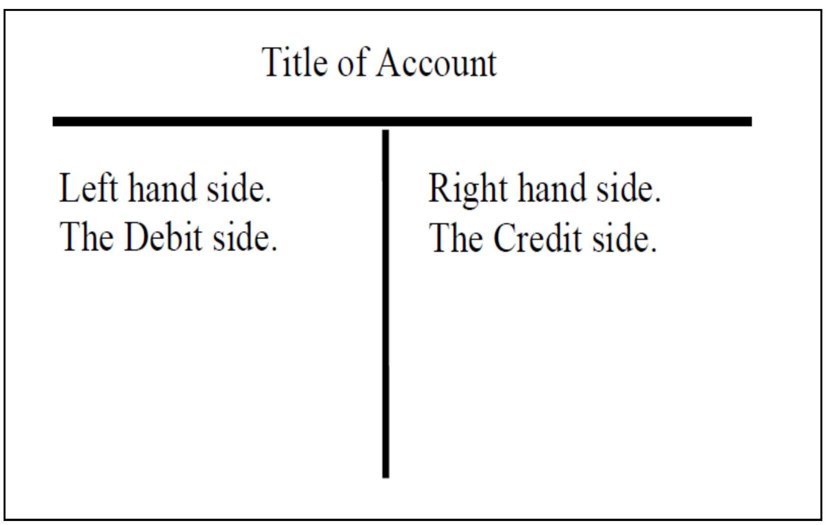


Figure 3 illustrates the recording of a basic accounting transaction. Whenever any receipt of cash, goods or services incurs, the Assets or Purchase accounts are debited and Capital, or Equity, or Liabilities, or Revenue or Sales accounts are credited. Whenever any payment of cash, goods or services incurs, the Liabilities, Capital or Equity, or Expenditure account is debited and Assets, Revenue or Sales accounts are credited. This double entry recording is the basic task in accounting (Eshai 2005).

Figure 3: Completing the recording – both effects (Eshai 2005)

Description	Code #	Debit Amount	Credit Amount
Cash	01	100,000	
Capital	02		100,000
Narration:	Capital Introduced in Cash by Owner		

Each accounting entry is posted into the ledger of an affected account. A debit amount is posted on the debit side of ledger and a credit amount is posted on the credit side. At the end of an accounting period, balance of each and every ledger account is drawn by totaling both the sides and finding the difference. The trial balance is made by preparing and arranging balances of all the ledger accounts. A standard format of trial balance as illustrated in Figure 4 contains columns of account number, title, debit balance and credit balance. The total of debit and credit side must tally as any difference in the total of debit and credit side signals a serious error of data recording or posting. The first major task in the financial accounting is to prepare the trial balance (Eshai 2005).

Figure 4: Illustration of a Trial Balance (Eshai 2005)

Particulars	Dr.	Cr.
Sales		100,000
Purchases	45,000	
purchase return		3,000
Salaries	12,000	
Rent	5,000	
Debtors	25,000	
Creditors		16,000
Capital		368,000
Plant & machinery	400,000	
Grand Total	487,000	487,000

Financi

At end of every set period such as monthly, quarterly, six monthly and annually trial balance is generated from ledger accounts. The accounts in trial balance are used for two most crucial financial statements called Balance Sheet and Income Statement (Humayun 2005).

Balance Sheet as illustrated in Figure 5 reflects the net worth of the entity by arranging all Assets on the debit side and all Liabilities, Capital and Equity accounts on the credit side. The difference between the two sides in Balance Sheet is shown as operating profit or loss and adjusted in the capital or equity accounts. Income statement as illustrated in Figure 6 shows all revenue, sale, purchase and expenditure accounts to show the operating profit (Humayun 2005).

Figure 5: Illustration of Balance Sheet (Humayun 2005)

The Balance Sheet of the XYZ Corporation

XYZ CORPORATION
Balance Sheet
20X2 and 20X1
(in $ millions)

Assets	**20X2**	**20X1**
Current assets:		
Cash and equivalents	$140	$107
Accounts receivable	294	270
Inventories	269	280
Other	58	50
Total current assets	$761	$707
Fixed assets:		
Property, plant, and equipment	$1,423	$1,274
Less accumulated depreciation	-550	-460
Net property, plant, and equipment	873	814
Intangible assets and other	245	221
Total fixed assets	$1,118	$1,035
Total assets	$1,879	$1,742

Figure 6: Illustration of Income Statement (Humayun 2005)

XYZ CORPORATION
Income Statement
20X2
(in $ millions)

Total operating revenues	$2,262
Cost of goods sold	- 1,655
Selling, general, and administrative expenses	- 327
Depreciation	- 90
Operating income	$190
Other income	29
Earnings before interest and taxes	$219
Interest expense	- 49
Pretax income	$170
Taxes	- 84
Current: $71	
Deferred: $13	
Net income	$86
Retained earnings:	$43
Dividends:	$43

The non-operating section of the income statement includes all financing costs, such as interest expense.

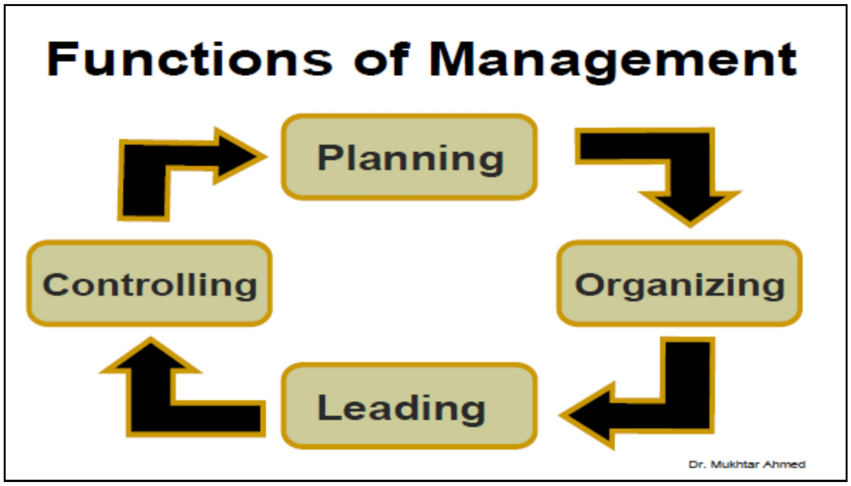
Kulkarni & Mahajan (2008) suggested that another name of financial accounting is the ‘general purpose accounting’. It is the primary means to arrive at the status of liquidity and profitability. Its application is guided by its attributes of verity, precision and objectivity. It is the accounting branch which serves the investment, finance and payment of dividend decisions of external bodies of stakeholders.

Financial statements produced by financial accounting also help the management to take decisions on extended matters like credit policy, risk-appetite and suggested behavior to comply with tax and corporate regulations (Needles *et al*. 2010:11).

2.2 Managment Accounting

Management is the cycle of planning, organizing, leading and controlling functions as illustrated in Figure 7. The management accounting performs all these functions to accomplish financial accounting (Humayun 2005).

Figure 7: Functions of Management (Humayun 2005)



The first component of management accounting is the budgetary planning in which explicit plans are made for translation into action. The results of the translated action and the plan are compared in the performance reports and if the difference is substantial then corrective measures are taken by the management. This is illustrated in Appendix 1. The two major plans are the cash forecast and profit plan. Appendix 2 gives its illustration. The cash budget or cash forecast lists expected receipts and payments of cash in each month of the budgeted period whereas the profit plan consist an estimated income statement (Accounting 2012).

The second component of management accounting is finding the cost of products and services during the budgeted period. The most common methods of cost finding include process costing, job-order costing and activity-based costing (Accounting 2012).

The third component of management accounting is the analysis of cost and profit. The analysis includes examination, modification and comparison of historical accounting data, budgets and standard costs. Different methods and principles of analysis are used in making managerial decisions. The most common methods and principles used for analysis include liquidity and solvency ratios, asset management ratios, debt or capital structure ratios, market value ratios, present value and discounting, future value, annuity and perpetuity, internal rate of return, net present value and pay-back periods (Accounting 2012).

The fourth component of management accounting is the performance report. It is prepared by comparing the historical data with the budgeted data and finding the variance. The income planned for the period is compared with the income earned. The profit or income reflects the operating efficiency of the company (Accounting 2012).

Management accounting is the tool for internal control and strategy formulation. With subsets of full cost accounting, differential accounting and responsibility accounting at its service, management accounting serves to fulfill the needs of planning, controlling and organizing within a firm. It does take inputs from financial statements only, but interprets them in a way different to that of financial one. (Khan & Jain 2008:1.10).

Relationship between Financial and Management Accounting

While financial accounting produces balance sheet, profit and loss and cash flow statement (Weygandt, Kimmel & Kieso 2010:5), management accounting brings forth budgets, activity cost data, forecasts and even probability of applying total quality management (TQM) and Just-in-Time (JIT) principles to eliminate irrelevant costs (Minaxi 2011).

Traditionally, what differentiate financial accounting with management accounting are the users of both and the uses to which they are put. Internal versus external reporting is the stereotypic parameter. However, actually, the two accounting branches make use of different principles of matching with the same cost input used in the beginning (Ryan 2004:26). When cost inputs are matched against sales and cash receipts, it gives insight on profit or surplus generated which forms the basis and purpose of financial accounting. On the contrary, when the same inputs are matched against a particular strategy of product development, purchasing or outsourcing, this financial information constitutes the basis and purpose of management accounting (Weygandt, Kimmel & Kieso 2010:5).

Lebas and Stolowy (2006:29) present a unified picture of relations between financial and management accounting. Though distinct in their purpose, outputs, context, time basis, users, orientation and implications, they both make use of cost accounting as interlink. Same figure is arrived at in the end, called 'profit' in financial accounting and 'contribution' in management accounting (Ryan 2004:26). Information disclosed by the output is also almost the same; it is the type of decision and the approach which makes the two complementary.

The coherence of these branches lies in the fact that financial accounting analyzes the financial information as an entity on a whole (Heitger *et al*. 2009:7) because this will pave the way for greater investments, financing and loosening or tightening of norms by government authorities (Needles *et al*. 2010:11). Management accounting uses the same information and data but analyses it by segregating into activities, products or processes because management control, decision making and strategy formulation rests on the surplus created by each of these.

Talking of the qualitative characteristics of both, relevance, reliability, comparability and consistency drive the success of financial accounting. It must fulfill reporting rules and conventions (separate entity, historical cost, conservatism, revenue recognition, etc.). Precisely, time is the governing factor for financial accounting.

Management accounting rests on the premise of cost-benefit analysis and is not bound by any such rules or conventions. Probably this is one of the major reasons behind why ethical and unethical reporting debate prevails between the two. Management accounting is devoid of rules and conventions and adopts a more ethical system as it undergoes regular improvement. Financial accountants usually stray from their limits and resort to improper standards, a popular example of which is Enron Corporation (Warren *et al*. 2009:5).

Measurement Standards

There are different systems of measurement used to calculate assets and liabilities. Assets can be measured either by current replacement value or by historical cost. Valuation of inventory is done on the basis of moving average, first-in, first-out (FIFO) or last-in, first-out (LIFO) or market value. Similar industries often adhere to the same measurement standards (Accounting 2012).

Standards, guidance and principles for measurement of accounting values are set by many government bodies and international organizations such as International Accounting Standards Board (IASB) U.K., and Financial Accounting Standards Board (FASB), U.S.A. Generally Accepted Accounting Priciples (GAAP) embodies the principles of accounting in USA (Accounting 2012).

Treatment of accounting events

The treatment of accounting transactions result in different values of total expenditures, assets, cost of assets, net income, depreciation and cost of goods sold. The first option for treatment of accounting transactions relates to the decision about time of recording event. There are two ways to record day to day event of accounting transaction. The first way is called "Cash Accounting" and the second way is called "Accrual Accounting. In cash accounting events are recorded only upon receipt or payment of actual cash or cheque. In accrual accounting events are recorded as and when they occur and not when they are received or paid (Eshai 2005)

The second option for treatment of accounting transactions relate to the method of finding cost of inventory issued or sold. There are three methods; LIFO, FIFO and Weighted Average. In LIFO method, cost of inventory is picked on the basis of last-in, first-out; the most recently purchased entry is removed first. In FIFO method, cost of inventory is picked on the basis of first-in, first-out; the oldest purchased entry is removed first. In both these methods actual purchase cost is used and therefore there are several different costs of the inventory. In Weighted Average the cost of each unit of inventory in stock is calculated after every single purchase (Eshai 2005).

The third option for treatment of accounting relates to the valuation of goods or inventory of physical stock. Besides deriving physical stock value through the three methods LIFO, FIFO and Weighted Average mentioned earlier, there are other prices which are used for valuation; market price, last purchase price, and current replacement cost (Eshai 2005).

The fourth option of treatment of accounting relates to the ways of calculating depreciation on assets. Most common methods used are straight-line method and reducing balance method. In straight line method fixed amount of depreciation is charged as per the formula shown in Figure 8(a). In reducing balance method depreciation for the first year is calculated on the original cost and there after on the written down value of assets. Written down value is the total cost minus accumulated depreciation. The forumula used for calculating depreciation on reducing balance is shown in Figure 8(b) (Eshai 2005)

Figure 8: Formula for calculating depreciation on assets (Eshai 2005)

Figure 8(a)

STRAIGHT LINE METHOD

Depreciation = (cost – Residual value) / Expected useful life of the asset

Residual value is the cost of the asset after the expiry of its useful life.

Figure 8(b)

REDUCING BALANCE METHOD

$$\text{Rate} = 1 - \sqrt[n]{Rv/c}$$

Where:

“RV” = Residual Value
“C” = Cost
“n” = Life of Asset

Disclosure

Public laws and regulations are made by the government regulatory body such as SEC in USA for issuance of financial statements. Similarly different countries have different acts for disclosure of financial information. In United Kingdom the disclosure of financial information is governed by the Companies Act. In Japan there are three laws to guide financial accounting; the Corporate Income Tax law, the Securities and Exchange law and the Commercial Code of Japan (Accounting 2012)

Auditing

Financial statements are initially made by the company's own accountants. They are required to be audited by the outside auditors which are generally appointed by the shareholders. In USA for example only certified public accountant (CPA) can perform audit. In the United Kingdom audit can be performed by chartered accountant (CA). The primary objective of outsider auditors is to investigate the methods and accounting data used by the accountant. External auditors are required to give their opinion about the financial position, cash flows and results shown in financial statements by the company's accountant (Accounting 2012).