Theory of Double Entry Account

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1. Concept of Double Entry

Every transaction has two effects. For example, if someone transacts a purchase of a drink from a local store, he pays cash to the shopkeeper and in return, he gets a bottle of dink. This simple transaction has two effects from the perspective of both, the buyer as well as the seller. The buyer's cash balance would decrease by the amount of the cost of purchase while on the other hand he will acquire a bottle of drink. Conversely, the seller will be one drink short though his cash balance would increase by the price of the drink.

Accounting attempts to record both effects of a transaction or event on the entity's financial statements. This is the application of double entry concept. Without applying double entry concept, accounting records would only reflect a partial view of the company's affairs. Imagine if an entity purchased a machine during a year, but the accounting records do not show whether the machine was purchased for cash or on credit. Perhaps the machine was bought in exchange of another machine. Such information can only be gained from accounting records if both effects of a transaction are accounted for.

Traditionally, the two effects of an accounting entry are known as Debit (Dr) and Credit (Cr). Accounting system is based on the principal that for every Debit entry, there will always be an equal Credit entry. This is known as the Duality Principal.

Debit entries are ones that account for the following effects:

- Increase in assets
- Increase in expense
- Decrease in liability
- Decrease in equity
- Decrease in income

Credit entries are ones that account for the following effects:

- Decrease in assets
- Decrease in expense
- Increase in liability
- Increase in equity
- Increase in income

Double Entry is recorded in a manner that the Accounting Equation is always in balance.
Assets - Liabilities = Capital

Any increase in expense (Dr) will be offset by a decrease in assets (Cr) or increase in liability or equity (Cr) and vice-versa. Hence, the accounting equation will still be in equilibrium.

2. Examples of Double Entry
2.1 Purchase of machine by cash

Debit	Machine (Increase in Asset)
Credit	Cash (Decrease in Asset)

2.2 Payment of utility bills

Debit	Utility Expense (Increase in Expense)
Credit	Cash (Decrease in Asset)

2.3 Interest received on bank deposit account

Debit	Cash (Increase in Asset)
Credit	Finance Income (Increase in Income)

2.4 Receipt of bank loan principal

Debit	Cash (Increase in Asset)
Credit	Bank Loan (Increase in Liability)

2.5 Issue of ordinary shares for cash

Debit	Cash (Increase in Asset)
Credit	Share Capital (Increase in Equity)

3. Ledger Accounts

Accounting Entries are recorded in ledger accounts. Debit entries are made on the left side of the ledger account whereas Credit entries are made to the right side. Ledger accounts are maintained in respect of every component of the financial statements. Ledger accounts may be divided into two main types: balance sheet ledger accounts and income statement ledger accounts.

4. Balance Sheet Ledger Accounts

Balance Sheet ledger accounts are maintained in respect of each asset, liability and equity component of the statement of financial position. Following is an example of a receivable ledger account:

Receivable Account					
Debit		**Rs.**	**Credit**		**Rs.**
Balance b/d	1	500	Cash	3	500
Sales	2	1000	Balance c/d	4	1000
		1500			1500

Balance brought down is the opening balance is in respect of the receivable at the start of the accounting period.

1. These are credit sales made during the period. Receivables account is debited because it has the effect of increasing the receivable asset. The corresponding credit entry is made to the Sales ledger account. The account in which the corresponding entry is made is always shown next to the amount, which in this case is the Sales ledger.

2. This is the amount of cash received from the debtor. Receiving cash has the effect of reducing the receivable asset and is therefore shown on the credit side. As it can seen, the corresponding debit entry is made in the cash ledger.

3. This represents the balance due from the debtor at the end of the accounting period. The figure has been arrived by subtracting the amount shown on the credit side from the sum of amounts shown on the debit side. This accounting period's closing balance is being carried forward as the opening balance of the next period.

Similar ledger accounts can be made for other balance sheet components such as payables, inventory, equity capital, non-current assets and so on.

5. Income Statement Ledger Accounts
Income statement ledger accounts are maintained in respect of incomes and expenditures. Following is an example of electricity expense ledger:

Electricity Expense Account					
Debit		**Rs.**	**Credit**		**Rs.**
Cash	1	1,000	Income Statement	2	1,000
		1,000			1,000

1. This is the amount of cash paid against electricity bill. The expense ledger is being debited to account for the increase in expense. The corresponding credit entry has been made in the cash ledger.

2. This represents the amount of expense charged to the income statement. The balance in the ledger has been recycled to the income statement which is being debited by the same amount. Unlike balance sheet ledger accounts, there is no balance brought down or carried forward. Instead, the income statement ledger is closed each accounting period end with the balancing figure representing the charge to income statement.

Similar ledger accounts can be made for other income statement components.

6. Accounting Equation
Double entry is recorded in a manner that the accounting equation is always in balance:
Assets = Liabilities + Equity
Assets of an entity may be financed either by external borrowing (i.e. Liabilities) or from internal sources of finance such as share capital and retained profits (i.e. Equity). Therefore, assets of an entity will always equal to the sum of its liabilities and equity.

The accounting equation may be re-arranged as follows:
Assets - Liabilities = Equity
We may test the Accounting Equation by incorporating the effects of several transactions to see whether it still balances as theorized in the accountancy literature. For the purpose of this test, we may classify accounting transaction into the following generic types:
1. Transactions that only affect Assets of the entity
2. Transactions that affect Assets and Liabilities of the entity
3. Transactions that affect Assets and Equity of the entity
4. Transactions that affect Liabilities and Equity of the entity
Note:
For all the examples on the next pages, it will be assumed that before any transaction, Assets of ABC LTD are Rs.10,000 while its Liabilities and Equity are Rs.5,000 each.

7. Transactions that only affect Assets of the entity

These transactions result in an increase in one asset which is equally offset by a decrease in another asset and vice versa.
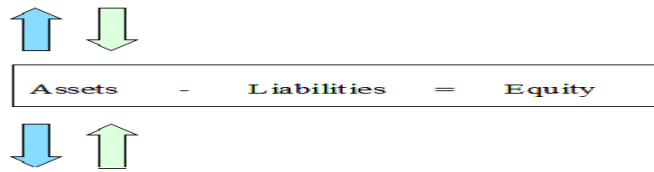
Since Assets, and other components of the equation, will be the same as before the transaction, the Accounting Equation will be in equilibrium.

7.1 Example 1

ABC LTD purchases a machine costing Rs.1000 for cash.
Before Transaction: Assets Rs.10, 000 - Liabilities Rs.5, 000 = Equity Rs.5, 000
After Transaction: Assets Rs.10, 000* - Liabilities Rs.5, 000 = Equity Rs.5, 000
* **Assets** Rs.10, 000 = Rs.10, 000 **Plus** Rs.1, 000 (Machine) **Less** Rs.1, 000 (Cash)

7.2 Example 2

ABC LTD receives Rs.500 cash from a receivable DEF LTD in respect of goods sold on credit.
Before Transaction: Assets Rs.10, 000 - Liabilities Rs.5, 000 = Equity Rs.5, 000
After Transaction: Assets Rs.10, 000* - Liabilities Rs.5, 000 = Equity Rs.5, 000
* **Assets** Rs.10, 000 = Rs.10, 000 **Plus** Rs.500 (Cash) **Less** Rs.500 (Trade Receivable)

8. Transactions that affect Assets and Liabilities of the entity

These transactions result in the increase in Assets and Liabilities of the entity simultaneously. Conversely, the transactions may cause a decrease in both Assets and Liabilities of the entity. Any increase in the assets will be offset by an equal increase in liabilities and vice versa causing the Accounting Equation to balance after the transactions are incorporated.

8.1 Example

ABC LTD receives Rs.2, 500 bank loan in cash.
Before Transaction: Assets Rs.10, 000 - Liabilities Rs.5, 000 = Equity Rs.5, 000
After Transaction: Assets Rs.12, 500* - Liabilities Rs.7, 500* = Equity Rs.5, 000
*Assets Rs.12, 500 = Rs.10, 000 Plus Rs.2, 500 (Cash)
*Liabilities Rs.7, 500 = Rs.5, 000 Plus Rs.2, 500 (Bank Loan)

8.2 Example

ABC LTD pays Rs.500 cash to XYZ LTD for goods purchased on credit.
Before Transaction: Assets Rs.10, 000 - Liabilities Rs.5, 000 = Equity Rs.5, 000
After Transaction: Assets Rs.9, 500* - Liabilities Rs.4, 500* = Equity Rs.5, 000
*Assets Rs.10, 000 = Rs.10, 000 Less Rs.500 (Cash)
*Liabilities Rs.4, 500 = Rs.5, 000 Less Rs.500 (Trade Payable)

References

1. Alfieri, Vittorio (1981). Luca Pacioli is no longer the first exhibitor of record keeping. La partita doppia applicata alle scritture delle antiche aziende mercantili veneziane,G.B. Paravia, Original from Columbia University, Alfieri, Chapter XIII,p. 117.
2. Edward M. Hyans (1916). Theory of accounts for accountant students. Universal Business Institute, Inc. pp. 17. Retrieved 7 April 2012.
3. Livio, Mario (2002). The Golden Ratio. New York: Broadway Books. pp. 130–131.ISBN 0-7679-0816-3.