



# **MULTI DIMENSION IMPACT ACCOUNTING (MDIA)**

## **FOR DISCUSSION**

## **COMMUNITY ACCOUNTANCY**

## **KEY CONCEPTS**

**Peter Burgess (2008)**

### **Background Note**

The following was prepared in 2008. This paper (incomplete draft) was written while a book length analysis of development assistance was being prepared, and the focus is largely on the systemic failure of this segment of the global socio-economic system.

Subsequently it has become clear that there are also major systemic issues in other segments of the global society and economy.

Most of the ideas that are starting to be described in this paper are incorporated in the subsequent development of Multi Dimension Impact Accounting (MDIA)



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# **Community Accountancy**

**PUTTING ACCOUNTANCY TO  
WORK FOR ALL OF SOCIETY**

# **THE KEY CONCEPTS**

**DRAFT FOR DISCUSSION**  
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## The Principles of Accounting

Principles of accounting are no longer central to modern accounting education ... in fact they have been sidelined. The reason for this is quite simple ... most of the leadership of our global society favors a regime of minimal accountability that allows greed to flourish.

The central point to accounting is to get data about facts into a record that is reliable. How it is done is very much a secondary level set of issues. The data are neutral ... and they are about facts. Measuring facts may be difficult ... but accounting aims to have data about facts on the record.

### History

It would seem that accounting is very old ... there has always been a need for fairness in socio-economic affairs, and equitable transactions must always have had a role in human interaction. Keeping track has a long history ... a hiding wealth and covering ones tracks an equally long history.

## Double Entry

Double entry is a powerful idea, now almost 500 years old ... and perhaps somewhat diminished in its importance with the use of computerized accountancy over the past 40 years.

There are two sorts of accounts that together balance ... (A) Balance Sheet Accounts; and, (B) Income and Expenditure Accounts. Changes in the balance sheet accounts over a period are the same as the difference between income and expenditure over the same period.

In corporate accounting the accounting is about the activities of the organization. In Community Accountancy the accounting is for the activities of the Community and embraces everything.

This concept of “balancing the books” has deep significance for the control of economic resources. It is a whole lot more than the accountancy done as a step towards filing a tax return or satisfying a legal requirement imposed by some regulatory agency. Balancing the books helps to identify problems in the activities of an economic entity through the simple process of equating what has been used with what has been achieved ... and if this is not right, something needs to be addressed.

### Financial Statements

The power of financial statements is achieved because of the links there are between the balance sheet and the income statement and the cash flow statement. All three of these presentations is systemically linked to the others. One set of accounting data is used to prepare all three reports.

Financial statements are simple considering what they communicate. In a few short pages, financial statements convey a huge amount about the financial status and performance of the reporting entity. Many millions of transactions are condensed into a few summary totals that are (relatively) easy to understand. Financial statements comprise balance sheet and operating statement that together tell the story of the financial state of the entity and the operating performance of the entity. Most entities will also report in a cash flow format, and there are various requirements and reasons for having notes and explanations as well.

The balance sheet is one of the most powerful analysis tools in accountancy ... critical for financial analysis, especially in complex situations. A balance sheet is accountancy shorthand to describe the financial conditions of an organizational entity. It shows assets and liabilities and explains how the difference between them came about. A balance sheet is an efficient way of showing with very few numbers the impact of thousands or millions of individual financial or economic transactions and comparing the balance sheet from different dates makes it possible to measure progress very tangibly and very easily.

# Corporate Accounting Reports

## Balance sheet

The balance sheet is one of the most powerful analysis tools in accountancy ... critical in corporate financial analysis ... but alas, missing in much of public sector financial reporting.

A balance sheet is accountancy shorthand that describes the financial conditions of an organizational entity. It shows assets and liabilities and explains how the difference between them came about.

A balance sheet is an efficient way of showing with very few numbers the impact of thousands or millions of individual financial or economic transactions and comparing the balance sheet from different dates makes it possible to measure progress very tangibly and very easily.

## Activity Statement ...

An operating statement or profit and loss account, or income and expenditure account ... all serve to explain the use of resources and what was received in return.

While the balance sheet is useful in describing how much change has happened ... the operating statements serve to explain how the change happened. The operating statements can be in summary ... or in great detail depending on the need for analysis.

An operating statement (profit and loss account or income and expenditure account) shows in summary form all the costs and all the revenues or income in an organized way.

The information from an operating statement shows the way in which the balance sheet has changed. In GAAP accounting these data apply to the corporate organization ... in Community Accountancy, the data include value to the community and social impact.

## Cash Flow Statements

A cash flow statement is a clarifying presentation that shows the way cash has been used, and how cash has been acquired.

A cash flow statement repeats much of what is in the P&L statement, excluding transactions that have no cash impact and including transactions that have impact on cash but not on the calculation of profit.

For example:

Depreciation has an impact on profit reporting, but not on cash.

Financing has an impact on cash but not on profit.

Changes in level of inventory have an impact on cash, but not on profit. Use of inventory in cost of sales, has an impact on profit.

## Notes to Accounts

While good accountancy should be very clear and based on sound accounting principles, there are times when there is a need for some explanation. Notes are an integral part of a set of accounts.

In much of modern accountancy the notes have become very complex, and it is not at all easy to understand the impact of these notes on the financial statements themselves.

# **The Reporting Entity**

## **Corporate Accountancy**

## **Community Accountancy**

For CA, the reporting entity is the community

## **Incomplete Records**

The logic of double entry and the framework comprising balance sheet accounts and profit and loss accounts that describe status, change in status and the cost and value or revenue of activities makes it possible to draw conclusions about missing elements using what is known.

While it is better to have a complete set of data, important conclusions can be drawn from only a subset of all the data.

Because of the balancing principle it is possible to prepare a complete presentation of financial performance without having all the data. It is also possible to validate the coherence of the data.

In practice this means that Community Accountancy can build a useful picture of community progress without having all the details.



## Importance of Multiple Datapoints

The importance of multiple datapoints applies in spatial analysis just as it does in other techniques of analysis. It may not be easy to know exactly about something ... or the complete story about anything ... but most often, it is relatively easy to tell something by reference to what it is in another place.

### **One datapoint ... and two datapoints**

If you have one datapoint it is a whole lot better than having no datapoints. If you know a person is 4 feet tall ... that is a lot more information than not having any height measure at all.

If another person is 5 feet tall ... there are now more datapoints ... and more questions ... and the beginning of some answers.

Perhaps ... is one person taller than the other because of age difference? Or is it some other factor?

If someone weighs 70 kg that is a potentially useful datapoint ... if they weighed 50 kg a year before, then the two datapoints are very useful. One datapoint tells only the status at one point in time or place ... two datapoints enable one to know what is different between two datapoints.

If the datapoint shows a bad situation at one point in time ... a better datapoint later is progress in the right direction.

There is a substantial amount of mathematics and statistics around data analysis ... but there is a lot that can be learned by simple plots of comparative data. Simple plots answer some big questions very easily ... but the data are needed.

Accountancy argues for more data that are simple and easy to understand ... and Community Accountancy argues for having more and more of the data with a community focus. If you cannot understand what the simple data shows ... walk around the community and see what is missing.

## The Basis of Accounting

The only accounting that should be permitted is accounting that embraces the basic principles of accountancy. This is not the present state of affairs ... and it has resulted in an almost total wrecking of the accountancy function.

### Accountancy ... a system

Corporate Accountancy is a system, and Community Accountancy is a variant of this system. Both based on the same basic principles for record keeping and accounts that have been used for several centuries. Accountancy has universality, but we have become accustomed to seeing accountancy being used only in an organizational setting, whether it is a company, or in government or an NGO ... and in recent years accountancy has been used creatively without respect for basic principles.

But the powerful logic of accountancy applies wherever there are economic transactions and it is logical to apply the principles of accountancy to the Community and the public in much the same way that the system applies to an organization and its stakeholders.

### Accrual accounting

Accrual accounting is used in the business world because it matches the expenses and the revenues within a reporting period so that the profit results are not distorted. This type of accounting has been the norm for commercial and industrial entity accounting since early in the industrial revolution ... but has not been used in most governmental entities. The principles associated with accrual accounting are clear, but in some modern accountancy regimes (such as the United States) the statutory authorities and the regulators have seen fit to suspend the accrual principles and allow important assets and liabilities not to be recorded in the balance sheet accounts.

Community Accountancy uses the accrual principles, applying these concepts not only to the money dimension of the accounting but also to the value dimension. This has many benefits, notably bringing into account future impact of present activities, both beneficial and detrimental.

### Cash based accountancy

Cash based accounting is common in government organizations. The US uses a cash based system. These systems have become intertwined with budget procedures ... have become increasingly complex and legalistic and increasingly seem to be inadequate to control funds and achieve any reasonable level of accountability for anything. Cash based accounting in government is one of the weakest aspects of modern governance and makes a mockery of responsible financial management ... which is almost certainly the big reason why it has remained the favored system of accounting in government.

Some countries have moved away from cash based systems in order to get better control of the financial management of government ... notably New Zealand, Australia and the UK. The move from cash based to more accrual based accounting is a substantial change with the potential for much confusion.

Community accounting can learn from the large scale government accounting experience ... and have an easier time simply because the scale is more manageable.

**Partial accrual basis**

## **Consolidation Accounting**

Consolidation accounting is a part of this paper because hardly anything is as simple as it seems, and consolidation accounting has the essential critical logic that helps to sort this complexity into its component parts. Community is impacted by many different economic entities and activities, and the way in which these interact and are recorded has been defined comprehensively in the accounting principles associated with consolidations.

Very few transactions are simple and have impact only on the direct participants ... most have other ramifications which are important in the money accounting of the business world, but have even more importance in the context of the combined flows of value and money around the community.

Modern corporate accountancy is complex. Most of the rules apply to the way an organization reports to the financial stakeholders and, to a much lesser degree, to the public. These reports are the result of complex consolidation that takes into consideration the way the internal and external value chains impact costs, revenues and profits.

Managing these value chains makes it possible for a corporate organization to minimize its exposure to taxes, duties and other regulations that impact its financial performance ... and understanding and having data about value chains makes it possible for the public to hold organizations accountable for their performance in the community and towards society as a whole.

## Materiality

In good accountancy, the data have utility and value in part because of the way data are organized. They help make it possible to focus on what is important. Good accountancy includes analysis about what is going to make a difference, without burying in costly inconsequential detail. Community Accountancy does this for things that are important for the community ... with the purpose of having these data is to get something done that improves the status of the community. Modern society is drowned in information that tells us a lot about unimportant matters ... while there is very little reliable information about matters that are very important. But many analysts do not realize how much time and effort they spend on matters that will have no impact on performance. And if the analyst does not understand what is material ... what hope is there that they will understand anything. Materiality is the concept that helps focus effort and analysis on issues that matter. The accountancy version of “Don't sweat the small things!” There are many examples including reports that include cents in multi-million dollar tables, a sure sign that the analyst does not understand materiality.

## Other Key Concepts

### **A fusion of several disciplines**

It has already been noted that Community Accountancy is a fusion of some of the key principles of engineering, management, human behavior and accountancy. This will become apparent as some of the issues and challenges of analysis in Community Accountancy are discussed.

### **Accounting ... the idea of accounts**

The origin of an account probably goes back to the idea that a responsible person had to give an account ... an accounting for what had happened. In practical terms an account in accounting is a critical part of the way accounting gets data organized.

## **Account Codes**

Account codes identify accounts ... just as account names identify accounts. Codes can make it easier to process transaction data automatically, as long as the account code designers have some understanding of computer logic and sorting.

### **Roll Up**

### **Drill Down**

## **Data Neutrality**

A critical strength of accountancy is that it produces data that are neutral. The use of these data may prove a point or support an opinion ... but the data are neutral. This is a fundamental of good professional accounting and is key to the system being of value. Old fashioned corporate accountancy had rules and conduct, both professional and internal to ensure that data are neutral and correct. New Community Accountancy must do the same.

In good accountancy data are neutral ... they merely are a reflection of something that has reality. Data may have economic characteristics, or represent any other piece of reality. Taken together, these data make a picture. But the data have to be neutral, and reflect as much as possible what is reality. This is in stark contrast to the aggressive use of financial engineering to create the appearance of value merely by re-presenting the reality. It may fool some of the time ... but not everyone all of the time. Old fashioned accountancy based on certain key principles helped to keep financial reports reliable and understandable ... but legislation and rules have sometimes worked to make wrong accounting legal and allowable. These situations have usual had the support of powerful interests ... but this does not make the accounting right ... just legal!

### **Data reliability**

The data associated with accountancy are boring ... but the system does what it can to ensure that the data are reliable and may be trusted. The techniques used for this include organization so that there is both internal control and internal check. The quality of accountancy data are enhanced by the professionalism of accountants who address the details that is so essential to data reliability.

The data reliability of accountancy is very much greater than what may be achieved using statistical method on top of small surveys. While there is a case for the statistical approach in some limited circumstances, it is not a useful alternative for financial control and for most accountancy reporting purposes.

### **Data independence ... accounting independence**

There is a need to have data ... and accounting ... independent. This helps to ensure that the data and the accounting reports reflect reality and are not merely some fiction desired by operating management. There are many different approaches that can be taken to have this independence ... it is, however, usually not enough to have an independent audit to provide this independent view when the structure itself is deeply flawed.



## **CA: A Perfected Form of Accountancy**

Community Accountancy is a fusion of several disciplines. Some of the key principles of engineering, management, human behavior and accountancy have been incorporated into the CA system.

The key characteristics of engineering incorporated into CA come mainly from engineering thermodynamics, control theory, hydraulics and aerodynamics.

Ideas from the area of management relate to how to get knowledge converted into value.

Ideas from human behavior are included because, if not, the chance of anything being of value is very much diminished.

Principles from the established field of corporate accountancy are used because they are surprisingly close to what is needed ... and simply need some modest modification to make them work for society as a whole rather than merely for the corporate subset of society.

## Source of Data

### Transactions

Transactions are the elemental economic event ... any economic activity comprises many transactions. Every purchase or sale is a transaction. Production is a transaction. Consumption is a transaction. Movement is a transaction. Everything.

Community Accountancy provides a framework so that small amounts of data can be used to build up a complete picture of the impact that economic activities are having on the community and how much resources are being used to give what result ... whether value adding or value destroying.

### Journals ... Books of Original Entry

Journals the the books of original entry are the first step in traditional accountancy for getting the details of the transaction organized and on the record. Journals ... or day books ... are essentially lists of transactions ... with ALL transactions being put on the record.

## Vouchers

A voucher is a document or record of some sort that describes the transaction. It may be a document that describes the sale ... an invoice ... or it might be a set of papers prepared to evidence the approval of the the transaction.

## Period Charges

### Depreciation

Depreciation brings together both an economic reality and an accounting principle. Some things last for a long time, some last for less time. The time they last and can function economically is the economic life of the thing. The cost when the thing is new is the acquisition cost, but the cost of using this thing in any period is the acquisition cost divided by its economic life.

A basic principle of accounting is that revenues for a period are matched against the costs of generating those revenues in the period.

# Consolidations

## About consolidations

The reason why consolidation accounting is an integral part of this paper is simply that a community is impacted by many different economic entities and activities, and the way in which these interact has already been defined comprehensively in the accounting principles associated with consolidations.

Very few transactions are simple and have impact only on the direct participants ... most have other ramifications which are important in the money accounting of the business world, but have even more importance in the context of the combined flows of value and money around the community.

### Consolidation

The consolidation technique makes it possible for complex organizations to aggregate their financial reporting so that a single report gives a fair representation of the underlying operations.

As the organization becomes more complex, the scope for planned misrepresentation increases.

What is powerful and useful for the corporate style GAAP accounting is equally of importance and useful in developing metrics for community impact analysis.

For organization accounting the idea of consolidation is to be able to present in one report the combined activities and results of many entities or units.

For Community Accountancy the idea of consolidation is the same. A simple consolidation report can summarize the outcome of many different activities and organizations in a community.

### Consolidating statements

In GAAP accounting a consolidating statement is used to help analysts understand how the data for the consolidated reports were aggregated, and to give a profile of the performance of the organization.

The same sort of report is useful in the community to show what entities in the community are creating wealth and which are not.

In organization accounting, consolidating statements show how different units make up the consolidated results.

For Community Accountancy a consolidating statement shows similar information. A consolidating statement shows what is working and what is not.

### Rules about consolidations

In GAAP accounting there are strong rules about how consolidations are done ... but the strong rules are also complex and subject to many views about what is permitted. Where there is complexity it is possible for clarity to disappear.

Some of the same issues arise in CIA where the focus is on activities in a community. Under CIA, the aim is to highlight alternatives rather than to argue simply for the one approach.

The principles of consolidation accounting are quite clear. However law and practical complexity make consolidation accounting difficult, and in turn less and less useful.

## TVM ... Community Accountancy ... Key Concepts

For Community Accountancy the basic principles of consolidation accounting apply. Community Accountancy aims to keep complexity to a minimum so that reports can be easily understood and have value to the public.

# Value Chain Analysis

## **Making value chains benefit community**

The end to end value chains tell interesting stories ... and maybe for this reason are not easy to compile. The value chain works well when everyone is making money, and it matters less in this situation that some party is making a lot of money, while others are making only modest amount. Things work when everyone is in positive money making territory.

In a situation where one main party is making most of the money ... it is likely that this is reflected in the capital markets as a high valuation of the company's stock ... but this is dangerous.

When attempts are made to make the allocation of money and value fairer with respect to the community, the money making by the one main party gets reduced ... and this in turn reduces the valuation of the capital markets.

Getting equitable distribution of value adding between corporate enterprise and society is not going to be easy ... and there may be major disruption of capital markets as this adjustment proceeds. In corporate accountancy and capital market terms this will be a bad change ... but looked at through the Community Accountancy perspective and including community values it is likely that society will be far ahead.

## National Accounts

The UN System of National Accounts developed in the 1950s expanded the national system of financial statistics to include balance sheet indicators. This was an important improvement of the expanded trade statistics that were previously used ... but the data available for most developing countries is still very limited and also very late. While the data are weak, the willingness of the international institutions to substitute estimates for actuals is problematic at best, and might have contributed directly to some development failure.

Some of the key concepts that are included in the UN System of National Accounts are also embraced by Community Accountancy. The balance sheet is a key concept in Community Accountancy ... but at the community level becomes very understandable and a very simple way of measuring progress. Balance sheet analysis used at the community level provides tangible metrics about progress and specific lessons may be learned. Community Accountancy is to the community what the system of national accounts can be to a nation.



# Analytics

## Making data valuable

There is a wide recognition that knowledge confers power and therefore has value. There are many organizations that have data ... and knowledge ... but these are little used for social benefit, rather, they are used to give the organization some competitive advantage. Community Accountancy aims to make data useful as management information for development ... in a complete comprehensive framework. This is the missing element that is needed to bring the north and the south together for global benefit.

- Getting data ...
- Getting data organized and into a data store where it can easily be accessed ...
- Mobilizing resource so tat they are allocated effectively ... the north has wealth and the resources to be enormously helpful, but rarely are the resources well used.
- The south has needs ... some are very urgent but resources do not get well allocated for priority needs.

## Foreign Direct Investment

Foreign Direct Investment (FDI) is investment from outside the community ... and while there may be benefit from this investment in the community, this is going to be some share of the total benefit arising from the investment. Experience shows that this share may be quite small, and maybe quite negative when all the social costs to the community are taken into account. The split of value added is critical to the success of the local community, and almost always a deep secret probably because the share attributed to the community is so small.

# Analysis

## **Analysis ... a step to creating value from data**

Community Accountancy is nothing without analysis. The effective use of the product of analysis for decision making and holding people and organizations accountable is what makes Community Accountancy valuable. Experience has shown that performance improves when there is active feedback and there are the data that enables people and organizations to be held to account. People may not like it ... but their performance improves. The purpose of analysis is to get a better understanding. The data are neutral ... the analysis then produces results that might suggest some conclusions. It really does not matter what analysis is done as long as the result is better understanding and improved decision making.

## **Using analysis**

One value step is moving from data through analysis to understanding ... another is to move from understanding to effective action. In some situations this has been done with wonderful results, but mostly there have been interventions that were more expensive than effective.

## **How do you measure**

It usually is very easy to know what to measure if two things are known: (1) what are the goals or objectives; and (2) what is the technology or science that is or may be used. Measure what is Simply put ... measure what makes sense.

## **What does measurement tell you**

The first thing is that what is measured is often what you are trying to do ... so when activities are measured and not impact, it can be concluded that the activities have priority over results. This is a widespread problem that Community Accountancy addresses.

## **Cost, price, value**

Cost, price and value are three numbers that describe economic activity. The relationship between these numbers determines the performance of almost any economic activity. All of these measures are important ... any one missing and the understanding of the dynamic of societal progress is compromised.

## **Time series**

Time series are very powerful ... the corporate world uses them all the time. Capital markets use time series ... the public needs to have time series that show what is going on that specifically impacts their community.

## **Comparative analysis**

Comparative analysis has many forms ... including (1) the comparison of data from one locations with another location; (2) the comparison from one time to another time; (3) the comparison from one organization to another (4) the comparison of what should be to what actually is; (5) the comparison of one approach to another approach; etc.

## **Standards**

The techniques of standard costing can be used in Community Accountancy as they are in corporate accountancy. A standard is what might be expected ... compared to an actual which is

what actually happened. There are many ways in which the comparison between actual and standard can be made ... the aim of analytical accountancy is for this comparison to improve understanding the most and cost the least.

## **Modularity**

Modularity helps make something manageable ... and makes it useful more rapidly. This is applied in Community Accountancy to make little things useful while waiting for other detail. In the Community Accountancy framework the community data can be worked on section by section ... bits of the economic activity analysis can be done. Modularity helps make something manageable ... and makes it useful more rapidly. This can be applied in Community Accountancy to make little things useful while waiting for everything to be deployed.

## **Cost of Community Accountancy**

The cost of community accountancy must be small relative to the economic activities that are going on. Because community accountancy aims to be useful in low income communities, the cost of the system is designed to be very very low ... and using only ultra low cost technology and systems. A good accounting system does not come free, but it should not be excessively expensive. Good design especially of analytical codes helps to reduce cost without sacrificing analytical power. A Community Accountancy system can be deployed with very low costs making use of existing available infrastructure. Good design, together with effective use of the Internet and relational database systems makes Community Accountancy much lower in cost than its value.

## **Cost accounting**

Cost centers, profit centers, investment centers, departments, etc are all rather similar. The key is to understand what they are doing and what they are costing.

If what they are doing does not seem to have any value ... then some further questions need to be asked and decisions made.

## **Analysis and reporting**

The process of collecting, organizing and storing data has a cost, and not much value. But analysis and reporting makes these data valuable and powerful.

Analysis may merely confirm that what was expected has happened ... or it may help to deepen understanding and facilitate new and better ways of creating value.

## **Cost, price value and productivity, profit and impact.**

Three critical metrics in understanding economic activity are: (1) cost, (2) price, and (3) value. The relationship between these numbers determines the performance of almost any economic activity. All of these measures are important ... any one missing and the understanding of the dynamic of societal progress is compromised. These metrics are a part of a further three critical indicators: (1) productivity ... productivity improves when less cost produces more goods or services; (2) profit ... profitability improves when price is increased and cost is decreased; and (3) impact on society ... impact improves when the value increases and the cost decreases.

## **Costs**

Cost has multiple components, and one of the most useful data points for cost is the one that eliminates all the profit elements from the cost value chain. The socio-economic success of the last two centuries has been reduction in cost.

## **Prices**

Price is a key variable in the performance of society. It is not as important as cost, but the way price is used in society determines the way value is shared between the various economic actors.

## **Value**

Value is what the recipient thinks it is worth. These relationships are key:

- When value is greater than cost there is value adding.
- When cost is greater than value there is value destruction.

## **Productivity**

Productivity is a derivative of cost ... productivity is the most important single metric for the performance of our global society. In broad terms science and technology has made it possible for society to live very comfortably, but leadership has not made the decisions that embrace what is possible for the benefit of a broad society but for narrow self interest.

## **Profit**

Profit is the relationship between cost and price, and has an impact on the stakeholders of the organization. Profit measures the performance of an organization, but does not bring into account the costs to society, or on the positive side, the value derived by society. Profit is the key metric for capital markets, and profit drives corporate stock valuation. Unfortunately profit and valuation now has taken on a life that is far removed from corporate operations and the impact of these operations on society with serious consequences.

## **Impact on society**

Impact on society is a function of value and cost, but not only these metrics. Price has a role in allocating how added value is shared between different segments of society and across the value chain. Community accountancy explicitly addresses this matter both at the individual community level and across complex value chains.

## **Value chain**

The value chain has been a critical factor in organizing development, production and marketing around the globe. The value chain has been structured to maximize profit for the involved organizations with little regard to the optimization of community value. The results have been predictable with favorable profit optimization largely offset by value destruction for society.

## **Transfer prices**

Prices are critical in economic analysis and the determination of profit and value to any entity. Transfer pricing is used to put a value on goods and services as they move from one sub-entity to another within an organization, or between controlled entities. They are a tool that can be used to move profit between entities and may have inappropriate consequences.

## **Management accounting**

Management accounting is a subset of accounting that helps to get useful analysis into the hands of decision makers. Management information is sometimes defined as the least amount of information that is needed to make good decisions reliably.

## **Cost accounting**

Corporate accounting systems usually have very effective cost accounting capability, but getting useful information from these systems is not always obvious.

## **Unit costs, prices and values**

Unit costs, prices and values are very informative ... they make comparison easy both over time and from place to place. There are some challenges because units of measure and currency exchange rates may confuse ... but when these issues are taken into account, unit costs, prices and values are very powerful.

## **Elements of cost**

Materials, labor and equipment are the main elements of cost that go into most production activities ... and determine costs.

## **Fixed and Variable Costs**

But these items also determine the behavior of costs and how costs can be improved.

## **Breakeven**

When costs are thought of as being fixed and variable, and revenues are thought of as being directly related to quantities, in a profitable activity, there is a mathematical point where revenues equal the sum of fixed and variable costs. This is known as the breakeven point.

# Organization Analysis

## **Department costs and the variants**

A cost center is one way in which costs can be organized to help understand and control costs. By pulling costs together within a unit called a cost center, it is possible to get information about a company's activities in a simple way.

## **Responsibility accounting**

Responsibility accounting is the name given to accounting where the reports specifically identify the responsible managers. This is a useful technique for getting clarity about who is responsible for what ... and there is rarely much agreement.

# Standard, Actual and Variance

## Standards and variances

Standard cost accounting is a tool that has helped cost accountants measure cost performance without getting deeply buried in detail. Standard costs are the theoretical cost that an item or service should have ... and when the actual costs are different, then it is time to find out why.

## Standard costs

## Standard values

The same approach is used for value as for cost. Every activity produces something ... what is the standard value of this output? This can be determined in an arbitrary manner, and then it can be used in an analytical framework, and compared to alternative values that are justified from different other perspectives.



## How to Measure

Cost is easy. Price is easy. Value is more difficult ... and all the more reason for having it central to the analysis system, and being able to prepare reports that look at results from different perspectives.

### **The KISS Principle**

The best data are data that are very clear ... very simple.

Keep it short and simple ... KISS ... is a good start to getting something that is clear and understandable.

### **Where possible measure directly**

### **Watch out for averages**

### **Even more, watch out for statistical manipulation**

### **WOFAC**

WOFAC ... Work Factor is a very simple crude system that I learned in the 1960s to measure organizational performance. As you walk round an office, a factory, a warehouse ... or any installation ... observe the activities of the people before they know you are there. Put the observations into a table that reflects (1) people working (2) people waiting (3) people socializing (4) people absent ... or some similar simple categorization.

Even in “efficient” organizations it is surprising how little work is done, how much there is of waiting ... not to mention socializing and just not present!

I still use the technique ... it does not require any equipment ... and the data are powerful.

### **Cost efficiency**

## **Cost effectiveness**

## **Sustainability Analysis**

Sustainability is a fashionable idea ... but with many meanings. One is that sustainability is to do with damage being done to the environment by the human race ... and the issues of the survival of our specie. Another is more pedestrian relating to the ability of a person or an organization to have enough financial resources to pay its bills and survive economically. One view of sustainability relates to the environment. Are economic activities doing excessive environmental damage or consuming too much of resources?

## **Efficiency**

Efficiency comes more from engineering than from accountancy ... but the idea is very relevant. Productivity is something similar to efficiency, as is cost effectiveness. In each case the amount of output is being related to the amount of input that went into the activity and its result.

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