# MODERN APPROACHES OF THE MANAGEMENT OF ALTERNATIVE TRADE SYSTEMS

Lecturer PhD Florin IONIȚĂ The Bucharest Academy of Economic Studies, Romania Lecturer PhD Sorin BURLACU The Bucharest Academy of Economic Studies, Romania PhD candidate Angel GAIDARGI The Bucharest Academy of Economic Studies, Romania

# ABSTRACT

The management of the modern trade systems has some particularities which could not be covered by the classic approaches and models of distribution channels or exchange systems occurred in the second half of the 20<sup>th</sup> century. The new challenges which determined both practitioners and theoreticians to look from a different angle at the way the goods and services are exchanged between entities or individuals were of both technical nature (as, for example, the new opportunities provided of IT systems and especially Internet based techniques) and of the nature of socio/economic environment evolution, as, for example, the need for security and lack of coherent solutions for avoiding the effects of the World economic crisis. Methods used for trade in the old times, as reciprocity, natural economy or barter can become strong alternative trade methods if supported by the power of the IT and managed by modern techniques.

**KEYWORDS:** Corporate and Retail Barter, Internet Supported Exchange Systems, Multilateral Transaction Automated System (MTAS), Local and Wide Area Exchange Trading Systems (LWETS)

# 1. Introduction

Even the alternative trade systems have been used for a long time, there were little or no attention payed to them in the last few years by the modern business world. Especially during flourishing times, when the economies of states did well, the classic circuit "money-products-money" was considered to be ideal and, in some ways, it really is. But there are situations when the well-known trade system mentioned above is not satisfactory in order to keep a high rhythm of the production cycle, and one of this situations occurs when the financial system doesn't work properly and does not supply the economy with real money.

This is why, the years 2008 and 2009 came with a huge demand of management techniques able to avoid the negative influences of the lack of financial resource on the state economies and on the development of different companies. At the level of financial or sales and purchase management there were enabled new types of relations, between company and competitors, banks, exchange organizations and other market actors.

Even in normal conditions, alternative trade methods can bring competitive advantage, especially by the efficient use of financial resource and extension of the market. Gaining new clients by offering them more competitive purchasing conditions or planning the supply chain in a more effective manner are other advantages that barter and other products and services exchange methods can offer.

Review of International Comparative Management

Supply chain management must take into account both retail and corporate barter. In the case of the Retail barter, small business owners conduct barter transactions through membership in commercial trade exchanges.

The first step to conducting retail barter transactions is to join a barter exchange - organizations which are usually made up of between 200 and 10,000 members that conduct indirect barter transactions with each other by way of a credit/debit system. Clients of the exchange are simply agreeing to accept an additional form of currency for payment. Members are free to purchase any product or service within the network—they do not have to accept each other's merchandise directly. Most members do business within a short range (usually under 50 km from their residence) and their business revolves around both products and services of various types. It sometimes happens that the organizations involved in this exchange system have extremely broad activity ranges, varying from media organizations, construction companies, dentists, restaurants, attorneys, printers, hotels, ad agencies, graphic designers and plastic surgeons to small consumer-oriented businesses like dry cleaners, flower shops and so on.

For example, at the end of 2008, there were 400 commercial barter exchanges in the U.S. and another 200 worldwide (Bruce Kamm, Virtual Barter 2009). The number of members per exchange ranges from about 200 to about 10,000, with most under 1,000. In total, the business-to-business network of barter exchanges represents over 450,000 companies.

On the other hand, Corporate Trade means that larger companies trade goods and services through accounts receivable (AR) trading, relying on a corporate barter company to purchase inventory offered for sale with trade credits and subsequently to fulfill the credits by providing goods and services requested by the seller. Like with retail barter, these types of transactions also take place through a third party barter company that acts as a broker.

Generally, a corporate barter process can be described as follows: a client -a company which is member of the barter association- identifies an asset that has lost value or is in excess. A barter firm takes a position in the client's excess inventory or underutilized capacity and provides them with trade credits up to the full original value. The trade credits can be used by the company to purchase a wide range of products and services for which a company normally must pay cash, including advertising, printing, travel and entertainment, construction materials, etc. By using the trade credits provided by a barter firm, a much higher value is restored to the client's assets than would typically be the case using traditional liquidation methods. In addition, the assets acquired by the barter firm are sold under terms and guidelines specified by the client.

The corporate barter company controls all the aspects of the barter transaction, buying and selling for its own account and becoming the purchasing agent for clients with regard to the use of their trade dollars. Under the Tax Equity & Fiscal Responsibility Act of 1982 (TEFRA), trade exchanges are classified as third-party record-keepers with the same fiduciary responsibilities as bankers and securities brokers.

Even Corporate barter was first used in the late 1960's, there are few differencies between the original form and the way it is used today. At that time, corporate barter was primarily a financial tool – a way for companies with excess or obsolete inventories to recover costs and even full wholesale value for their inventories. Today, corporate barter both remains a profitable alternative to markdowns or liquidation and provides a valuable way to expand a company's advertising and marketing plan using the leverage of a barter transaction. Corporate barter also facilitates foreign trade with countries that have goods and services to exchange but no hard currency. Examples of corporate trade are numerous: unfilled trucking on return trips, idle plant equipment, excess maintenance inventory, years on a lease when a company moves, and even stock in a firm. Privately held companies sell

474 Special Number 1/2009

restricted stock for trade dollars to offset marketing costs that will help build name recognition and market share, to build trade dollar reserves or to purchase hard assets such as real estate. Bruce Kamm estimates that seven to ten corporate barter companies do about 95 percent of the corporate trade business.

Barter is a business solution. No two trade transactions are ever alike.

#### 2. The evolution of alternative trade exchanges. Barter

Barter can be considered in fact the oldest (consensual) system of exchanging goods and services. Long before the advent of any sort of money, people exchanged their own goods of value for other things they wanted. Bob Bagga shows in an intervention on www.baggaonbarter.com (September 2009) that a well known example of such transaction is the one took place on May 24, 1626, when Peter Minuit, a director of the Dutch West India Trading Company, bartered about \$24 worth of beads and trinkets to local Indians in exchange for the island of Manhattan.

It is known, for example, that the earliest forms of money are not the paper and coinage systems we think of today, but currency in the form of things like livestock—think sheep and cattle (commodity money). One can still find this form of barter at primitive tribes and different tribal societies.

The challenges and limitations of these types of transactional systems are lead to the evolution of representative currency. The main disadvantage of primitive barter, as described above refers the fact that between the seller and the buyer must occur a double coincidence of needs, meaning they must have what each other wants at the same time. Another one is about the difficulty to properly value goods with direct barter—one cow may not produce as much milk as the next. And last, there is no ability to store value.

Representative currency serves primarily as a store of value that can be redeemed against goods or services at a later time. And the more liquid the currency (widely accepted) the more valuable it is. It first appeared around 1200 B.C. in China in the form of cowry shells. Metal coins followed, along with leather currency and eventually paper notes in the 9<sup>th</sup> century. Europe finally came around in the 15<sup>th</sup> century and began using paper notes too. Representative money saw its sweet "golden" era during the 18<sup>th</sup> and 19<sup>th</sup> centuries, when the price of most currencies was pegged to the price of gold. 1971 marked the end of the gold standard in the U.S., and by 1976, most other countries in the world followed suit. What the vast majority of people in the world now use as tender is technically referred to as "fiat money," which is currency given value by the laws of a government.

Even, as we have already shown, barter is the oldest form of trade, it has evolved significantly in twentieth century. Being, for the past several thousand years, a supplemental form of exchange in currency-based economies, barter recorded its most notable evolution in the last century, when we witnessed a vast growth in scope and number of trade exchanges.

Some specialists consider that the importance of alternative exchange systems is always connected with recession and financial crisis. The most commonly acknowledged first business barter exchange is the WIR system. WIR—which means "we" in German was founded in 1934 by businessmen Werner Zimmermann and Paul Enz to help cope with currency shortages after the stock market crash of 1929. Within one year of its founding, the WIR system had 3,000 participants, and today the organization is still growing with more than 62,000 members doing over \$2 billion a year in B2B barter transactions. Table 1 shows the evolution of this trade system in Switzerland, country which is famous for its banking system. As a matter of fact, WIR is organized as a bank, itself.

Review of International Comparative Management

Barter Turnover, Number of Firms, and Credit-on-Turnover, WIR-Bank, 1948-99

					Table 1		
					(in Millions of Current Swiss Franks)		
Year	Turnover	Participants	Credit	Year	Turnover	Participants	Credit
1948	1.1	814	0.3	1974	200.0	20902	73.0
1949	2.0	1070	0.5	1975	204.7	21869	78.9
1950	3.8	1574	1.0	1976	223.0	23172	82.2
1951	6.8	2089	1.3	1977	233.2	23929	84.5
1952	12.6	2941	3.1	1978	240.4	24479	86.5
1953	20.2	4540	4.6	1979	247.5	24191	89.0
1954	30.0	5957	7.2	1980	255.3	24227	94.1
1955	39.1	7231	10.5	1981	275.2	24501	103.3
1956	47.2	9060	11.8	1982	330.0	26040	127.7
1957	48.4	10286	12.1	1983	432.3	28418	159.6
1958	53.0	11606	13.1	1984	523.0	31330	200.9
1959	60.0	12192	14.0	1985	673.0	34353	242.7
1960	67.4	12567	15.4	1986	826.0	38012	292.5
1961	69.3	12445	16.7	1987	1065.0	42227	359.3
1962	76.7	12720	19.3	1988	1329.0	46895	437.3
1963	83.6	12670	21.6	1989	1553.0	51349	525.7
1964	101.6	13680	24.3	1990	1788.0	56309	612.5
1965	111.9	14367	25.5	1991	2047.0	62958	731.7
1966	121.5	15076	27.0	1992	2404.0	70465	829.8
1967	135.2	15964	37.3	1993	2521.0	76618	892.3
1968	152.2	17069	44.9	1994	2509.0	79766	904.1
1969	170.1	17906	50.3	1995	2355.0	81516	890.6
1970	183.3	18239	57.2	1996	2262.0	82558	869.8
1971	195.1	19038	66.2	1997	2085.0	82793	843.6
1972	209.3	19523	69.3	1998	1976.0	82751	807.7
1973	196.7	20402	69.9	1999	1833.0	82487	788.7

Sources: Data to 1983 are from Meierhofer (1984). Subsequent years are from Annual Reports and WIR, public relations department (2000).

In Switzerland, considered, as shown above, the birthplace of modern barter exchange, the Turnover, grew, from 1948 to 1999, 1666 times, while the number of participants grew, in the same interval, only 101 times, and the credit increased more than 2600 times.

As shown in Table 2, United States recorded a continuous increase of corporate barter transactions.

## Volume of Corporate Barter, North American Companies, 1974-1995

Table 2 (in Millions of current US Dollars)			
Volume			
3200			
3470			
3750			
4050			
4550			
5100			

476 Special Number 1/2009

Table 1

Year	Volume	Year	Volume
1981	1980	1992	5570
1982	2200	1993	6050
1983	2440	1994	6560
1984	2680	1995	7216
1985	2900		

Source: Barter by North American Companies, (http://ww2.dgsys.com/~irta/statisti.html)

If, in Switzerland, the ratio between the turnover in 1974 and that one in 1995 is about 8.5%, the volume of barter exchange in 1974 represents, in US, 11.8% of that recorded in 1995.

The modern *barter exchange* eliminates the need to directly conduct a barter transaction with another party; it eliminates the necessity of a double coincidence of needs. Additional benefits are that valuing products and services becomes much easier due to the expanded market; transactions can be easily tracked and reported; trade revenue can be banked and stored; and the speed of transactions has increased.

What has really accelerated barter exchange systems in the last decade though is the introduction of computer facilitation. Especially in today's technologically advanced world, the level of security, customization, speed and accessibility associated with the barter software being used by most exchanges makes carrying out trades via a barter exchange easier than ever before. Exchange members can easily and instantly search, buy and sell among their partner members for the goods and services they need, or conversely for prospects that might be looking for goods and services.

There is still of course a very important place for cash in the modern day economy, but it's evident that more people and businesses are discovering that it makes sense to save cash if what's needed can be obtained through barter, especially when it is possible to use idle capacity, excess inventory or simply incremental business to pay for goods or services that you would have otherwise paid cash for.

#### 3. Main usages of Barter exchange method

#### 3.1 Financing business purchases

One of the most important features of barter exchange is that it preserves cash; this is, probably, the most common reason businesses use barter. We can say that, under these circumstances, barter is a finance mechanism. It is especially used when credit markets are tight, (as they are now), and it permits a business without adequate cash in the bank make critical capital investments. In this case, the solution is barter finance. The mechanism is as follows: a business joins a barter exchange and takes out a barter line of credit. This line of credit enables that business to buy goods or services from any other member of the barter exchange, be it advertising, printing, IT services, renovations or build-outs of new business locations. Rather than paying cash for the products or services received, the business that took out the line of credit is obliged to pay it back by delivering an equal value of its own products or services at market value to the other members of the exchange.

In conjunction to preserving cash, this financing method has some other advantages over traditional financing, which means it shouldn't just be thought of as a strategy employed during difficult economic times. It raises capital in a way that doesn't dilute the stock holdings of shareholders; it results in immediate new customers from the exchange; and it frees up cash for the business to assist in further expansion, debt reduction or dividends.

Review of International Comparative Management

#### 3.2 Enlarging markets and gaining new customers

The barter exchange acts as a marketing tool by promoting the business to other exchange members in order to generate the additional sales. As a matter of fact, the credit received from the barter exchange institution is paid back by means of increasing sales, generated by the barter exchange institution itself, who acts as a marketing agent. Locating new clients is one of the aims of barter exchange actor.

In the same time, clients who would normally need the products or services provided by a company but would only purchase it in limited quantities, because of the cash limitations, could decide, due to the conditions offered by barter, to purchase larger amounts.

There were cases when, because the affiliation of a firm at a barter exchange, the sales level increased with 10-15%, even the other competitors' production dramatically dropped.

#### 3.3 Avoiding financial crisis and lack of cash

As we witnessed in the last two years, even a competitive industry can fail because of the financial crisis. The most exposed industries are those with long production cycle, unable to recover the money invested in the production process fast enough to be able to invest it in a new production cycle, how it happens in the ship building industry. Taking as example the evolutions in the world economy of the last year, we can see a lot of companies which, because of the lack of operational credit, could not purchase the necessary raw materials, energy, parts, etc and could not continue their activity.

Accepting necessary goods or services (parts, energy, etc) in change of their products allow them to restart the production cycle without being affected by the lack of cash on their specific markets.

# 3.4 Gaining efficiency

Transportation business has some particularities which makes it fit for barter exchange. One of the most common applications of this exchange method consists in acceptance of goods and services by the transportation company in change for providing transportation capacity of a truck or train on the return way, which otherwise would return empty. A paid delivery which covers all the expenses of the two ways might be unacceptably expensive, so, when possible, the return is contracted as well. Normally, any income generated by using the vehicle on the return way reduces the overall costs of the transport, same as any services or products accepted in change for this service. The same situation is met for the auxiliary products of some factories, which can be changed for raw materials, services or parts necessary for the production process.

#### 3.5 Decreasing stock excess and accelerating slow-moving inventory

People are discovering they can use barter to pay for a wide variety of products and services for which they are accustomed to writing checks, including advertising, capital expenditures, commodities and assets. They're also realizing that using barter helps bring in new cash-paying customers. When things turn around, none of these things will change.

478 Special Number 1/2009

#### 4. IT and alternative trade systems

Even the barter exchange organizations are not new, what IT brought in trade and exchange alternative techniques after the year 2000 are the Internet Supported Exchange Systems. They are based on the concept of virtual enterprise, a wide variety of software systems are used at geographically distributed locations, in the environment of heterogeneous computer based systems. The most important problem it solves is the data communication and exchange between different computer systems, accommodating databases about products and services demanded or offered for barter changes. New data interchange standards occurred, as, for example, STandard for the Exchange of Product model data (STEP). It's goal is to enable the communication of product data between heterogeneous CAD/CAE/CAPP/CAM/CAx systems. The Internet (a global network of computers) allows companies to collaborate electronically. Therefore, the combination of the Internet and STEP will provide an effective and efficient mechanism to support virtual enterprises. Since applications of STEP are still in its infant stage, many systems used in the virtual enterprises do not support it.

Another approach of modern barter exchanges refers Multilateral Transaction Automated System (MTAS). Because of powerful mathematical methods, as for example those based on Graphs Theory, an automated system may deal with indirect demands and offers. We mean that an enterprise, named, for example, X produces and wants to exchange, a certain product (x1) for another product (or service) y1. Another enterprise offers y1 for y2. Supposing that there is a third company, who products y2 and wants x1, a MTAS can make the connections necessary between the demands and offers, negotiates all the possible deals and gives an optimal solution- a receipt for exchanges between the three companies.

All these facilities led to a huge extension of Local and Wide Area Exchange Trading Systems (LWETS), complex systems formed from market actors, as companies, barter exchanges (both classical and virtual), banks, law and regulations systems, which became more and more sorts of parralel economies, trading for proprietary monetary units and having global turnovers larger than the GBPs of some developed countries. The concept is based on Local Exchange and Trading Systems (LETS), developed by Collin C. Williams, from University of Leeds. It represents a new form of barter economy developed in many industrial nations. LETS are local associations whose members list their offers of, and requests for, goods and services in a directory and then exchange them priced in a local unit of currency. Geographical limitations were abolished by internet technologies, so the local characteristic of these systems disappeared and this is why a more correct term nominating these systems is Local and Wide Area Exchange Trading Systems (LWETS).

Another managerial approach is that the exchange barter is a service, which, under the circumstances of the development of IT and especially internet, can be efficiently delivered as an electronic service. This leads to some conclusions about the way such an activity should be organized and work, either as a company, non profit organization or public institution.

#### 5. Conclusions

The global situation of the world economy made that suddenly barter is getting a lot of attention, especially in the flexible economies as, for example, US. What happened is that the downturn led many companies—small, medium and large—to discover barter for the first time.

Review of International Comparative Management

The use of barter as a business tool can vary greatly depending on the needs, financial goals, assets and fulfillment desired by the company. There are many ways in which barter can be incorporated into a business model to increase efficiency and improve the bottom line.

We consider that barter is not only for the tough times, but a strategic tool that should be used during economic expansions and contractions. This is because preserving cash and moving excess inventory and capacity will always be profitable for a business, no matter what the prevailing economic conditions. This is why we expect that most of companies that turned to barter to help their businesses grow during the downturn will continue to use it as a tool. Once a firm identifies ways, as, for example barter, which can support their growth, it is probable that it will use it permanently, especially that businesses are forced to be more efficient. Savvy companies have been using barter out of choice for decades.

The internet is once again making large-scale information efficient, and centralized barter is an emerging form of e-commerce. Barter clearing-houses are growing with internet startups like swap.com, BarterTrust.com, and uBarter.com.

### REFERENCES

- 1. Abraham, D.J.; Blum, A.; Sandholm, T. Clearing algorithms for barter exchange markets: enabling nationwide kidney exchanges Electronic Commerce Proceedings of the 8th ACM conference on Electronic commerce, San Diego, California, USA 2007
- 2. Aukutsionek, S. Industrial barter in Russia Post-Communist Economies, Routledge 1998
- 3. Băşanu, G.: Ionita, F.: Savin, D. *Modern tools used in the process of business analyse*, Proceedings of The International Economic Conference "Romania within the EU:Opportunities, Requirements and Perspectives" Sibiu, Univ. Lucian Blaga, Mai 2007
- 4. Doyle, K. *The social meanings of money and property: in search of a talisman,* Sage Publications, 1999
- 5. Humprey, C., Hugh-Jones, S. *Barter, exchange, and value: an anthropological approach*, Cambridge University Press 1994
- 6. Ionita, F. "IT governance a global approach at company level Electronic Government", an *International Journal*, Inderscience Publishers, Geneve 2009, DOI 10.1504/EG.2009.027786
- Segev, A.; Gebauer, J.; Farber, F. "Internet-based Electronic Markets" International Journal of Electronic Markets, Media Communication Management Institute University St. Gallen, Switzerland 1999
- 8. Starr, R. *The Structure of Exchange in Barter and Monetary Economies* The MIT Press 1972
- 9. Stodder, J. Reciprocal exchange networks: Implications for macroeconomic stability International Electronic and Electrical Engineering (IEEE) Engineering Management Society (EMS) Conference, in Albuquerque, New Mexico, August 2000
- 10. Williams, C. "The new barter economy: an appraisal of Local Exchange and Trade Systems (LETS)" *Journal of Public Policies*, 1996
- 11. www.baggaonbarter.com
- 12. http://ww2.dgsys.com/~irta/statisti.html

480 Special Number 1/2009