CHAPTER 9

PERFORMANCE MANAGEMENT OF COLLABORATION IN SUPPLY CHAIN

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9.1. Supply Chain Performance and Strategic Collaborative Management through Balanced Scorecard. Case study

9.1.1. Introduction

Organizational performance

Nowadays, complexity of organization managing forces the managers to look at organization performance through different points of view: Profitableness; Productivity; Customers and employees satisfaction.

To pass from a measurement system centered on financial parameters (efficiency) to another (customer satisfaction) is just a simple changing aspect. It has to make the switch to a participatory management, being underlined change target for every member of the team.

Organizational performance is those action and state of organization in which, following congruent decisions and actions, are met those targets and elements of strategic vision which satisfy everybody.

Performance management

It is generally accepted the fact that performance management is a permanent and evolving process, in which personal abilities and organizational parameters are constantly improving having the goal to increase individual and organizational efficiency.

A performance management system represents a philosophy which connects all the activities inside an organization having as criteria human resources politics, organizational culture, style and communication systems.

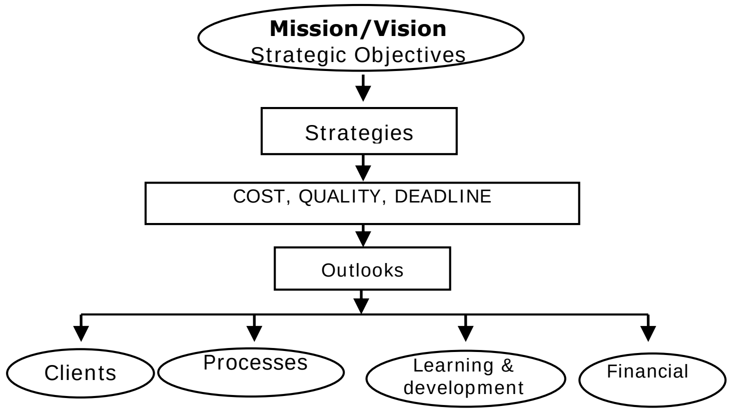
Aligning all these elements will be accomplished by mission, vision and strategic targets. The mission takes form of a summary of "what represents and what organization has in purpose to accomplish on long term (10-15 years)" and whereby the organization clarifies fundamental identity aspects. To improve departments and individual's performance, understanding organization mission is essential. However, besides improving and sharing of a common vision of organization, it's essential that every employee or group of employees understand what have to do to make vision come true. This implies establishing strategic performance targets and spreading out through strategic objectives as far as individual objectives which reflect the targets. At the same time, these have to be defined in terms of common efforts so that overall contribution of employees to represent more than the sum of individual contribution.

Strategic performance management

Strategic performance management represents a process through which the company manages its performance, an aligned process to organizational and functional strategies and objectives. There are a lot of instruments and activities within the organization which contributes to that goal. These may include: defining of organizational objectives, priorities and values.

In the process of defining of a balanced scorecard, the steps to be followed in order to achieve the strategy explain the organization's strategic step to create new value. In other words, balanced scorecard has to be seen as a navigating instrument which helps to draw the way the organization will sale in order to achieve the strategy.

Figure 9.1 Mission of organization and strategic planning



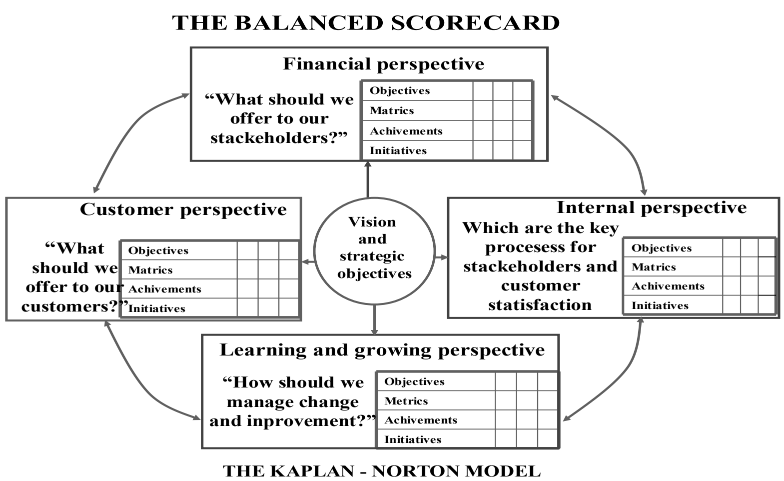
Source: Kaplan & Norton, 2001

Starting from Norton and Kaplan's balanced scorecard model (*Kaplan & Norton, 2001)*, compound of four axes, for each axis we'll use the following indicators:

Financial axis: represents the goal of measurement of all organizational performance indicators. There are many ways for improving financial status, among we take as example market share and productivity rising.

Clients' axis: Always there has to be found new ways to raise market share, news methods for differencing the company from other companies. Three generic values are most considered by the companies: operational excellence; command level for an excellent response; customer devotion.

Figure 9.2 The balanced scorecard (the Kaplan-Norton Model)



Internal processes axis: We may give four examples of big processes in a organization: innovation process; clients relationship management process; arranging product traceability for adding value; relationship process with society.

Learning and growing axis: Learning and growing perspective could be exemplified by three domains: employees competencies and abilities; new technologies; organizational culture.

9.1.2. ECR Europe studies regarding alliance performances

ECR Europe performed several studies regarding performance.

The evaluation of improvements impact over profit

A first ECR Europe study which approaches the alliance performance is "Assessing the profit impact on ECR", through measuring the costs and profit over ECR.
"Profit impact on ECR Task Force (PIETF)" created and tested the evaluation methodology of ABD costs, a 6 steps approach to evaluate the impact on profit using a software application, an activity guide, to realize an activity map. These tools are used for establishing costs on activities and also to calculate the impact of improvements on profit. A detail description of methodology and tools is realized in ECR – Europe Guide, The Evaluation of improvements impact on profit. (*ECR Europe, 1999)*

Based on PIETF outputs, the companies are encouraged to implement a tool which alleges the organizations in aligning different activity costs and assessing cost and profit when different improving concepts are chosen.

Integrated suppliers

Another study, named "Integrated suppliers of ingredients, raw materials and packaging", realized by Frannhofer – Apllication Center Transport, Logistics and Communication Technology, *(ECR Europe & Fraunhofer Institute, 2000)* treats measuring of alliance performance from the perspective of relationship between supplier and manufacturer. Supplier integration represents a concept for improving the distribution chain between manufacturers and their ingredients, raw materials and packaging suppliers. Sharing information, both sides may try to optimize others' costs, quantities and delivery or production times in order to simplify production flow and to advance towards a collaborative relationship.

The scorecard for integrated organizations

The scorecard for integrated organizations is structured according to the six key concepts of integrated organizations and is applicable to sides, manufacturer and supplier. The scorecard may be used to self-assessment and to a joint-evaluation with partners. If the partners agreed, in trans-functional terms, with the key concepts, it means that they accomplished the foundations for action. Moreover, the scorecards have to be permanently used in order to monitor regularly the performance and to establish a ceaseless improving culture inside the company and between the partners.

Key Performance Indicators

Using KPI could measure the global performance of alliance relationships in terms of inventions, customer serving and delivery terms.

The most important KPI are:

- *Inventory level* – it is measured both through inventory level of suppliers materials and manufactures' materials.
- *Delivery term* – represents an important performance indicator in relationships between supplier and producer; that's why it is considered a KPI. Delivery term represents the total length of time, starting with order launching, continuing with receiving the ordered goods, launching a product in production and finishing with delivering the goods to the clients. Delivery term refers, essentially, at orders for materials, production and changing of materials;
- *Level of serving* – evaluated by using the perfect order as KPI. The orders will become almost useless in advanced relationships between integrated organizations. Accordingly, out-of-stock will become a more relevant indicator.

The necessity of sharing KPI with partners and using them for analyzing the benchmarks is the main reason for cost indicators not being in KPI but as internal measuring indicators. Anyway, the costs represent very important indicators of measuring performance. Thus, the information regarding costs has to be closely monitored by companies, but they aren't KPI for communication process or for external benchmarks. KPI for costs include production costs indicators and total costs of the chain or inter-organizational logistics costs. Therefore, delivery term, computed as starting with production launching, is a complete indicator regarding supplier flexibility. Anyway, in almost all relationships between supplier – producer and especially in those in which exist an advanced level of key concepts implementation, ordering procedure is obsolete. As a consequence, it won't be necessary to measure the gap between orders launching and receiving, so delivery term calculated starting with production launching become more relevant.

9.1.3. The collaborative management of ECR Alliance

Our proposal is the collaborative balanced scorecard between manufacturer and a retailer
The building process of the collaborative scorecard for ECR alliance between two organizations (a local dairy manufacturer and a global retailer) always begins with establishing of a clear strategy.
This strategy has to be a inter-organizational project and has to offer the opportunity, for the player from different processes and organizations to cooperate in order to establish common objectives. Once that the team members established the common strategy, they can move forward to build the collaborative scorecard aligned to this strategy.

We can understand the collaborative management compared to the commune flight of two jets (Figure 9.3). Each pilot has his own control panel in the cockpit used to manage his own flight (with his own objectives about altitude, speed, number of loops, optimal use of the airplane), but as a participant to the "aviatic show" he has to follow some commune objectives of the team show (to make a fabulous program for the public entertainment)

Figure 9.3 The collaboration between two pilots for an aviatic show

The control panel

The former researches refer to the management and performance measuring of alliance using indicators which shows that working together is a consistent thing. This consistency may be introduced into an ax of working processes together.

David Norton and Robert Kaplan describe in *Alignment* the control panel of the scorecard of Brewer and Speh. According to these, a certain type of control panel for scorecard doesn't apply for every scorecard. The control panel created to reduce the production, delivery and merchandising costs for common products with predictable demand has other objectives than the control panel for special products. Some control panels need reduced costs and a high speed of inventories, while others need flexibility, short response time, accuracy in prevision and innovation.

The customers' perspective

The companies have to emphasize both the clients inside the control panel, and the final customers. The benefits for these customers have to include improving of the quality of products and services, short delivery terms, high availability and high over-value. These benefits are measured along the whole chain using some indicators, as: delivery on term, the duration of production cycle, customers' satisfaction rate and very well satisfied orders.

The internal processes' perspective

As a result of improving the processes, we me have some benefits as:

- Reducing waste – duplicate processes' elimination, harmonizing processes and systems, reducing the faults of fabrication, wastes and rejected products, obtain low levels of inventories, reducing the duration of order-delivery and cash to cash cycles.
- Flexible response – ability to fulfill the unique demands of every customer regarding product variety, volumes, packing, loading, arraying and delivery.
- Reduced unit costs towards customization and flexibility level expected by the client – The suppliers want the elimination of some costs by erasing inventory duplicates, multiple handling of products, un-coordinated promotions and businesses.
- Innovation – the participants monitor new discovers in technology, competition or in customers' preferences in order to create and develop new offer which may earn customers' loyalty.

As in customers' perspective, improving of internal processes are measured with a lot of indicators as: the accuracy of anticipation, the quality of production, the production's flexibility and the duration of production cycles.

The learning and growing perspective

The objectives regarding the human capital contain human resources need, operations, marketing, sales, logistics and finance, proving of abilities and knowledge in order to collaborate intra and inter-organizational to obtain performance and delivery more value to the customers and final users. The objectives of informational capital are tied by harmonizing and connecting systems along the partner organizations, the standardization of information protocols, analyzing and sharing of information about suppliers and clients and supplying of relevant, real, actual and accessible information. The organization culture should sustain sharing of best practices, permanent improving, transparency along the whole chain and commitment to eliminating waste and delays in the system. In the same time it is necessary to offer maximum value to the final users.

The financial perspective

The financial indicators for the control panel of a scorecard are traditional and generic. A functional scorecard has to lead to a higher profit margins, lower production unit costs, growing cash flow, growing turnover and higher ROE. The control panel contains indicators as transportation cost, the level of processing orders, taking deliveries, depositing, merchandising, depreciation and cost reductions, profitableness.

The emphasis on certain indicators is determined by the used strategy. For the production and distribution of mature products, the main indicators will be those related to cash flow, unit costs and ROA. For differentiated strategies, indicators having a bigger role are growing of turnover, market share increases and decreases in the level of the prices.

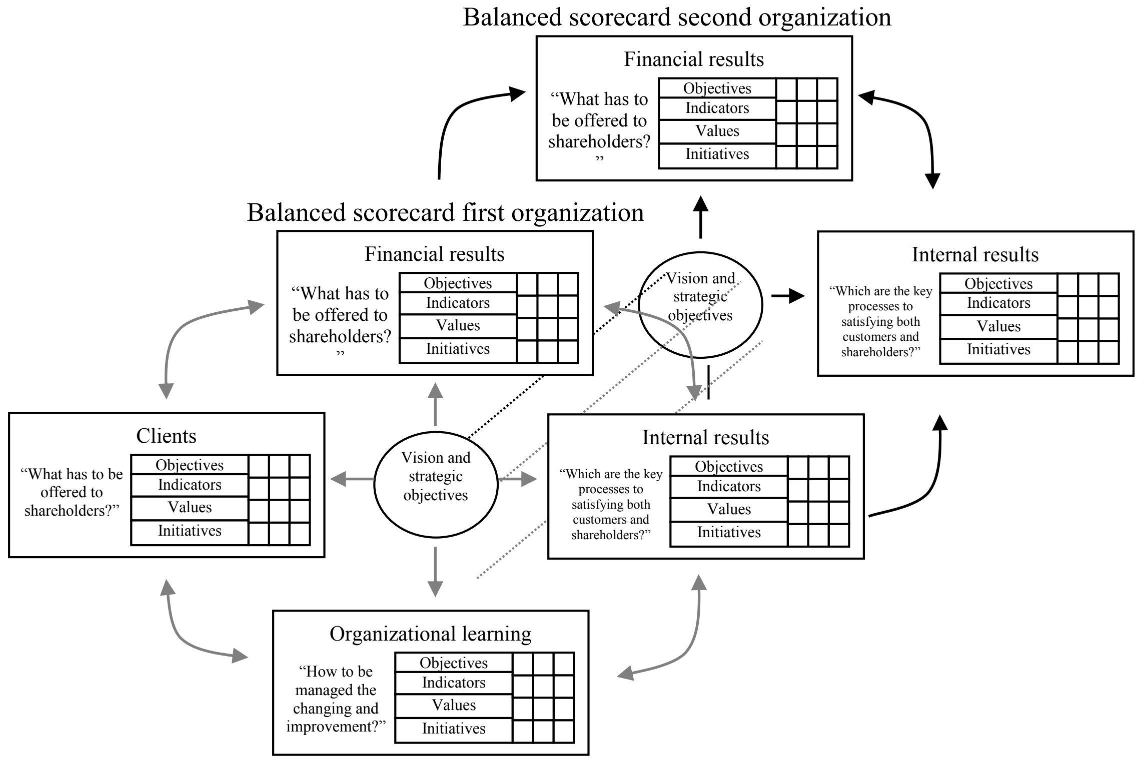
The collaborative balanced scorecard between a producer and a retailer

The building process of the collaborative scorecard for ECR alliance between two organizations (a local dairy producer and a global retailer) always begins with establishing of a clear strategy. This strategy has to be a inter-organizational project and has to offer the opportunity, for the player from different processes and organizations to cooperate in order to establish common objectives. Once that the team members established the common strategy, they can move forward to build the collaborative scorecard aligned to this strategy.

A tool capable to operate both into different structures / substructures of the alliance and to integrate each of these structures' efforts in order to be aligned to the objectives of the purchasing-distribution chain is the version of the balanced scorecard presented in Figure 9.4. The balanced scorecard formally connects the alliance's global objectives with the chosen strategies for achieving these objectives using some general indicators of performance measuring.

The using of SCOR (Supply Chain Operations Reference) model as a performance measuring instrument (Supply Chain Council, 2003)

Figure 9.4 The collaborative scorecard of ECR alliance



Source: The Norton-Kaplan model, adjusted for two strategic aligned organizations

Those objectives, strategies and measuring indicators at alliance level could be aligned at organizational level. Here, the organizations develop objectives, strategies to fulfill these objectives and alliance's performance measuring indicators. This process is repeated at the level of the axes of interest from the organizations members of the alliance.

The instruments of performance measuring are difficult to define and, especially, to measure. A few among these instruments offers a clear image about the global performance, underlying the performance problems or identifying the improvement opportunities. Among all the strategic objectives of alliance performance, the most efficient due to system understanding, which influence behaviors along the system and offers information about the efforts of alliance members, could be found in Table 9.1

These strategic objectives for measuring the ECR alliance's performance may be thought as the essence of the alliance. We may represent it graphic as two circles which contain the vision and strategic objectives.

Table 9.1 Strategic objectives and measurement indicators of a logistic chain

Strategic Objectives	***Criteria definition***	***Measurement indicators***
Alliance's deliver disponibility	Alliance's performance in delivering: the correct product at the correct place, at the optimum moment, with optimal packing and delivery conditions, with correct quantity and with corresponding documentation	Performance in delivering
		Perfect answer to requests
Alliance's responding speed	The speed at an alliance delivers a product to a client	The best term to answer
Alliance's eligibility	Alliance's agility to respond at market request to may win or maintain competitive advantage	Alliance's responding time
		Production eligibility

Alliance's costs	The costs associated to the alliance	The costs of goods sold
		Alliance's total costs
		Warranty and return costs
Alliance's efficiency. Goods	Organization efficiency to sustain demand satisfaction. This includes the management of all goods: fixed and mobile	Cash flow
		Inventory for both organizations
		Value of goods

Source: Supply Chain Council – Supply Chain Operations Reference Model, 2003

These are the management of organizations which form the alliance.
In order to implement a scorecard for the alliance, as a leading tool of the alliance chain performance, we'll start from the vision defining, major objectives and their targets at which they'll align the own strategies, targets and strategic objectives following that each company to develop measurements and indicators for their own scorecard. Every organization's target, objective and action are created to support the common strategy, and KPI derive from the strategic objectives. Each scorecard is integrated and aligned to the common scorecard.

There are a lot of people which believe that "if you cannot measure a phenomenon, then you can't control it". At this moment of time, some measurement systems provide a clear image of the global performance, underlying the causes of performance problems or the improvement opportunities. The reason is simple: it is difficult to realize a robust and useful measuring program. Establishing of an agreement between the companies regarding what has to be measured, about defining the chosen measurement system and how often the measurement should be made may imply a very big effort. Also, the manager commitment on the fundamental proposal of measuring program could be the most controversial activity of all.

At the highest level, alliance's operations are expected to contribute at the company's financial performance. For that, the performance's measuring tools has to accomplish three major objectives: first, it has to transform financial objectives and target into efficient measurements of operational activity. Second, it has to transform the operational performance into exact future previsions of incomes or sales. And, third, it has to lead behaviors into the allied organizations which sustain the global strategy of the common business.

Measurement is the only way to verify if the performance of the processes increases or decreases and if is necessary to take supplementary actions. Much too often, the companies find out about the problems regarding the success or failure in achieving the objectives after these are happening, in the moment when the income decreases, the customers run to the competition or when the result decrease under the expectations.

For an easy collaboration in alliance performance management through the balanced scorecard with dual commitment we propose The Strategic Alliance's Balanced Scorecard (Table 9.2). Table 9.2 shows some of the key objectives which may be included into such a alliance scorecard. Also, a list of measurement indicators is projected leading, by aggregation, to a correct measurement of the strategic step.

Table 9.2 The Alliance's Balanced Scorecard

Manufacturer

	Importance	Strategic objectives	Objectives hierarchy	Measurements /Indicators	Analytical hierarchy	Values		Spread analysis (%)	Balanced score (%)
						Target	Effective moment		
Clients	150	1. Order cycle duration	100	1. Days between order and re-order	15			95	14.25
		2. Out-of-stock	200	2. Days of out-of-stock	30			95	28.50
		3. Price benchmark	400	3. Competition prices	60			90	54
		4. Brand image	300	4. Position in classification	45			80	36
Processes	175	1. Stock management	400	1. Average inventory	70			95	66.50
		2. Delivery quality	200	2. % on-time delivery	35			90	31.50
		3. Days for provisioning	200	3. Number of days for provisioning	35			95	33.25
		4. Returned materials	200	4. Value of returned materials	35			98	34.30

Learning	75	1. % EDI Integration	400	1. % Volume of EDI treated information	30			90	27
		2. % ECR trained persons	200	2. % trained persons	15			100	15
		3. Standardization level / optimum practices	400	3. % personnel respecting best practices	30			85	25.50
Financial	100	1. Costs of goods sold	350	1. Product costs	35			88	30.80
		2. % Personnel costs	250	2. % Personnel costs	35			96	24
		3. Working productivity	200	3. Turnover / No. Workers	30			94	28.20
		4. ROA	200	4. Net profit / Assets	20			97	19.40
Total 1	500				500			-	468.3

Recommandations/Results

After analyzing the results of performance assessment for the two organizations with the scorecard, the information and data will be transferred to inter-organizational project team which will incorporate it into the chain scorecard.

Thus, the team will meet monthly to analyze the general scorecards for the two organizations and, based on this analyze, they'll upgrade the level of indicators from the scorecard and will study the differences between the goals of these indicators and the realized level. Then the tem will propose solution in order to achieve the goals which haven't been yet achieved.

The development of an alliance's scorecard may lead to the decreasing of conflict between the partners. The process of strategic map and scorecard building puts face to face the top management of the two sides to establish clearly the alliance's objectives as well the strategy for achieving those objectives.

Retailer

	Importance	Strategic objectives	Objectives hierarchy	Measurements /Indicators	Analytical hierarchy	Values: Target	Values: Effective moment	Spread analysis (%)	Balanced score (%)
Clients	150	5. Order cycle duration	100	1. Days between order and re-order	15			95	14.25
		6. Out-of-stock	200	2. Days of out-of-stock	30			95	28.50
		7. Price benchmark	400	3. Competition prices	60			90	54
		8. Brand image	300	4. Position in classification	45			80	36
Processes	175	1. Stock management	400	1. Average inventory	70			95	66.5
		1. Delivery quality	200	2. % on-time delivery	35			90	31.50
		2. Days for provisioning	200	3. Number of days for provisioning	35			95	33.25
		3. Returned materials	200	4. Value of returned materials	35			98	34.3
Learning	75	4. %EDI Integration	400	1. % Volume of EDI treated information	30			90	27
		5. %ECR trained persons	200	2. % trained persons	15			100	15
		6. Standardization level / optimum practices	400	3. % personnel respecting best practices	30			85	25.50

Financial	100	5. Costs of goods sold 6. %Personnel costs 7. Working productivity 8. ROA	350 250 200 200	1. Product costs 2. % Personnel costs 3. Turnover / No. Workers 4. Net profit / Assets	35 35 30 20			88 96 94 97	30.80 24 28.20 19.40
Total 1	500				500			-	468.3

A selling and marketing alliance could underline the low cost of acquiring new clients, the minimum term for launching new products on the market and sales increasing as a result of acquiring new clients and improving the relationships with the existent clients. An alliance based on development and innovation is focused on the quantity and level of innovation of the new products, and the impact of technology transfer over the mother companies. A production alliance could have as purpose decreasing the production costs, improving the quality, reducing the period between ordering and delivering.

The output – a strategic map, a control panel for measuring, targets, fundamental and commonly accepted initiatives- offers to the alliance's project management the way to follow and an excellent base for governing the joint-venture project.

More and more the companies use the alliances to compensate lack of their own abilities and to enter new markets and regions. Aligning with these partners isn't an easy process. Many alliances end up in disappointments and failures. Having a common set of indicators isn't an easy thing.

Each side has its own process of reporting and measuring and every company has its own perspective regarding their own contribution to the alliance and the profit from that alliance. To overpass these informational and motivational asymmetries, they need a transparent process in which every side articulates sound and clear the expected contributions and outputs, from which to result a summarizing document with the strategic situation of the alliance.

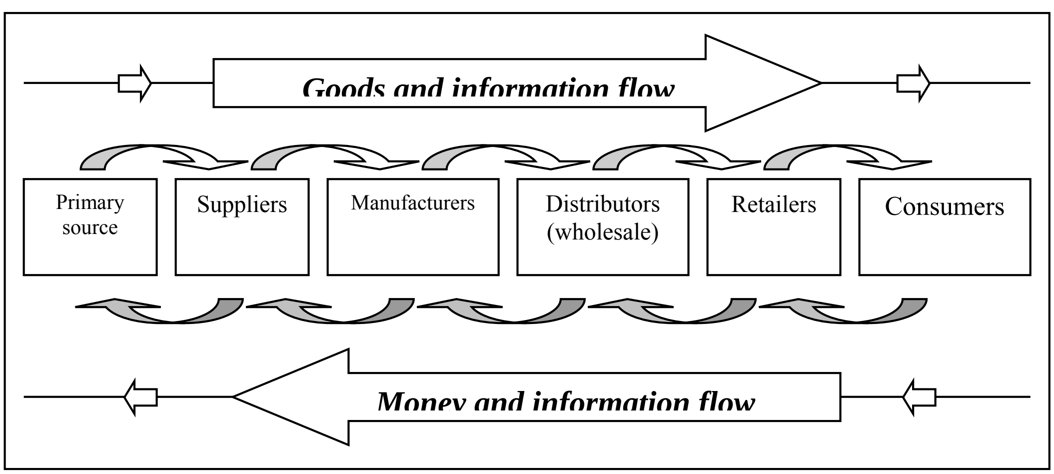
9.2. Performance Dashboard - a Piloting Tool of a SC Processes. Case Study

9.2.1. Managing and measuring the performance of supply chain processes

Specifics in designing a high performance supply chain

The supply chain (Figure 9.5) is a network of organizations involved, through upstream and downstream connections, in various processes and activities that generate value as consumer products and services.

Figure 9.5. Supply chain of today



The supply chain has a few distinct features:

- An information flow
- Typical orders or demand signals
- Order signals for product suppliers
- The flow of materials and finished products that fulfill demand
- The payment flow
- The information flow.

The objective of all efforts in a supply chain is enhancing competitiveness. This because, in the eyes of the consumer, for the competitiveness of products and services is responsible not a single organization, but an entire supply chain (SC). To convince a company to become part of a SC, successful situations must be created for all participant organizations, for a long way of working together.

For the integration of the SC, participant companies must:

1. focalize on consumers, not on products
2. understand the cost implied by satisfying the consumer and not the price tag of the product
3. concentrate on the communication with the consumer and not only on promotion
4. discover the way in which the consumer wishes to "buy" the convenience factor,instead of determining only their shopping place.

9.2.2. The five major processes of a high performance supply chain

In the creation of a SCM – Supply Chain Management, it is important to pursue the integration between its processes, as well as with processes from other organizations, such as: technology, product/service development, marketing and sales, customer service.

The five major processes of SCM (SCOR – Model) is:

1. Planning

As inputs for planning, there is information concerning SC demand, reserves and resources. This information facilitates decision making and guides the SC activities that form the execution processes: purchasing, production, delivery and return. Each of these execution processes is an element for planning.

2. Purchasing

Utilizing the plan generated by purchasing planning, the purchasing process of SC obtains all materials and services needed through operational activities such as purchasing, scheduling, reception, inspection and supplier payment authorization. Purchasing also implies supplier selection and supplier relationship management.

3. Production

To increase flexibility and efficacy of capital utilization and minimize costs, more and more companies use external partners (outsourcing) for certain production activities, such as: production, certification, testing or packaging. This implies setting common objectives and processes throughout the extended network.

4. Delivery

The delivery process creates order visibility for the purchasing and production processes and ensures clear communication of customer requirements. Delivery also includes warehousing, transportation and distribution activities.

5. Return

The return process allows assuring, collecting and disposal of previously sold products, according to enterprise policies and customer agreements and includes activities from return authorization to financial declarations. The main causes for returns differ among industries, but include return defect, wrong or unsatisfactory products; maintenance, repair and reconstruction based on service agreements, excess inventory returns throughout the channel and recycling are types of return processes and each includes various activities, associated with each type of return.

Return also implies collecting a series of analytical information concerning the causes for return, locations and credits and most often, the central collecting points provide a way for collecting the volume of products in the most cost efficient manner.

9.2.3. Performance Dashboard - a Piloting Tool of a SC Processes. Case Study

An instrument capable of both operating within different structures/substructures of SCM and integrating the efforts of these structures/substructures to be aligned with SC objectives is the soft version of the Balanced Scorecard (BSC). BSC formally links global SC objectives with the strategies chosen for reaching these objectives with the help of general performance measures. Objectives, strategies and performance measures at SC level can all be aligned to organizational levels. At this level, organizations develop objectives, strategies for reaching these objectives and associated performance measures. This process is repeated at functional level within SC member organizations, and then ported to process level within various functions, developing their own objectives, strategies and performance measures, based on those of the function they belong to.

Figure 9.6. Deploying the scorecard in a supply chain

Supply Chain level Balanced Scorecard
Organizational level Balanced Scorecard
Functional level Performance Dashboard
Process level Performance Dashboard

As is the case with measuring organizational performance, this process in the case of an organization part of a SC implies the measurement of satisfaction on the following axes, while the indicators used will be aligned with the SC strategy, objectives, targets and measures:

- Customer perspective, which includes indicators such as on time delivery, lead time, customer satisfaction and perfect orders fulfillment.
- Internal perspective, which includes indicators such as forecast accuracy, production quality, production flexibility.
- Learning and innovation perspective, the most difficult to define axis, because its measures must reflect the efficacy of the company in acquiring new abilities. Stuff objectives such as Six Sigma training certification are excellent for establishing relevant measures for this axis.
- Financial perspective, that includes measures such as sold merchandise/goods costs, stuff expenses rates, (value added) productivity, asset rate.

The figure above represents the logistic chain of S.C. ILDŢA SA formed, upstream, by fresh milk, materials and ingredients suppliers and downstream, by retailers that distribute the products to end consumers (Figure 9.8).

Fresh milk suppliers are divided in two categories: physical persons and micro-farmers from certain areas (selected by S.C. ILDŢA SA) which, according to the contract, deliver daily a pre-established quantity of milk that is verified and collected from collection centers by the firm's trucks, via 13 routes, and moved towards the factory's warehouses; the second category, including enterprises/farms that, again based on contract, deliver fresh milk that is verified, collected and transported with the firm's trucks for processing.

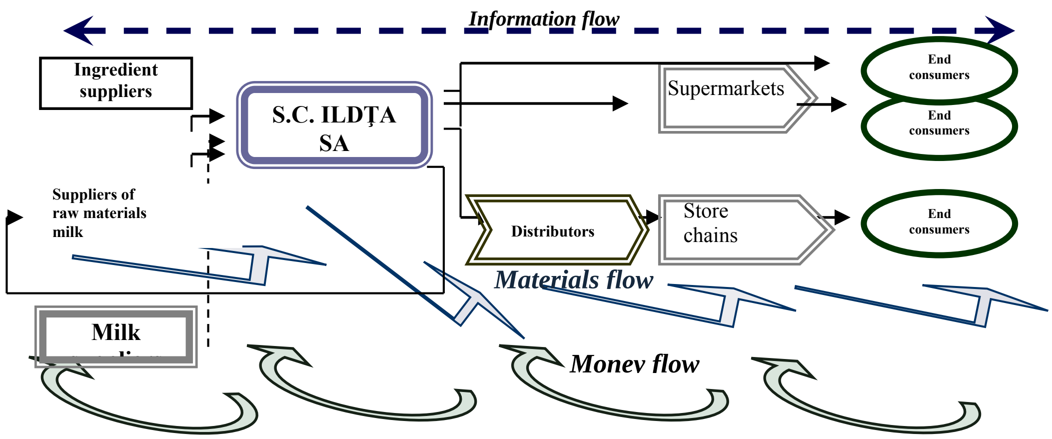
9.2.4. The Logistic Chain of S.C. ILDŢA SA

Up until this year, the fresh milk purchasing has been done from suppliers from certain districts, but the new European regulations concerning cattle farming, milk production and manufacturer's milk quota led to a crisis among milk manufacturers, which determined the firm to use imports of milk raw materials, from Hungarian manufacturers.

Being products with high perishability, purchasing and production processes duration must be as short as possible, and the distribution planning, as realistic as possible.

The distribution of the company's products is done directly to end consumers, through its own four stores, as well as through store and supermarket chains recognized anywhere in the country. Sometimes, distributors are wholesalers. Beside diary products, the firm manufactures a secondary biotic product, which is sometimes distributed to suppliers, based on agreements, as payment for raw materials supplied by them.

Figure 9.7. The Logistic Chain of S.C. ILDŢA SA



9.2.5. Piloting the Supply Chain of S.C. ILDŢA SA using the Balanced Scorecard

The proposal for the implementation of the Balanced Scorecard (BSC) to evaluate and pilot the supply chain of S.C. ILDŢA SA envisions a better utilization of distribution channel resources to generate growth of revenue and sales to end consumers.

A first major step in this direction is determining the SC partners to engage in the implementation of this project. From the key partners, the firm must identify those that are open for collaboration, those that can be persuaded, as well as those that are hostile, but also the ways to engage and motivate the partners in implementing this collaborative project. In most cases, the partnership is initiated upstream, by identifying the most important suppliers and starting an alliance with them. This is because, in the majority of cases, the suppliers are more receptive to collaboration and improvement projects.

This is also the case for S.C. ILDŢA SA, for which an upstream partnership is the starting point because the suppliers (the key ones) are more easily convinced about the benefits of a closer collaboration, given their weaker position on the market, compared to the enterprise. In order to select the supplier with which S.C. ILDŢA SA may initiate a SC partnership, a supplier importance analysis is required, based on the quantity of raw materials (fresh milk) delivered yearly and its cost.

The key suppliers of milk raw materials are presented in the table below:

Table 9.3. Suppliers of milk raw materials of S.C. ILDŢA SA

Art.	Supplier Name	Quantity h l /year	% of total fresh milk quantity
1.	S.C.INDUSTRIAL CONSTRUCT S.A.	3650	3%
2.	S.C. COMITPEN SRL	730	0.5%
3.	S.C.CARPATI MODERN SRL	7300	5.8%
4.	S.C.AGROINDAF AFUMATI S.A.	9125	7.2%
5.	S.C. BALOTESTI S.A.	10220	8.2%
6.	S.C.TERA S.A TITU	1277	1.0%
7.	S.C.TONICO GENERAL COM S.A.	32485	25.7%
8.	S.C.AGROZOOTEHNICA S.A.	1460	1.1%
9.	S.C.ECOPROT IMPEX SRL	4015	3.1%
10.	S.C.PITIS S.R.L. NUCET	1825	1.5%
11.	S.C.BACIU COM SRL	547	0.5%
12.	S.C.AGROMILK SRL	2190	1.7%
13.	A.F. LUNGU	1095	1.0%

As can be observed from the table above, the most important supplier of raw materials for S.C. ILDŢA SA is S.C. Tonico General Com SA, with a 25.7% of the yearly delivered milk volume. Thus, given the importance of this supplier in the firm's purchasing process, it is indicated that a partnership be formed with it, mutually beneficial, for a sustained growth of the business.

Following the strategic alliance with the selected partner (S.C. Tonico General Com SA) on the SC, the firms jointly analyze and formulate the SC strategy, from which objectives and strategies will be deployed, aligned at organization, division, department and function levels.

The SC strategy of S.C. ILDŢA SA is that of increasing the customer base and their loyalty, to reach the objective of revenue and product availability growth. The objectives of S.C. ILDŢA SA aligned with the joint strategy are 11% revenue growth and 3% market share growth, as well as improved order fulfillment.

Starting from these SC objectives, it is proposed to move to establishing of derived/aligned objectives for each of the scorecard axes.

Following the setting of relevant and measurable objectives for each of the scorecard axes, a number of key performance indicators (KPI) will be jointly selected, aligned with these objectives that will be monitored monthly by an interorganizational team that represents both parties of the alliance.

A series of these indicators are compounded by other indicators that will be monitored at least monthly as well, as needed, either by the interorganizational team, or by department managers, appointed by each company.

Starting from the SC Balanced Scorecard, scorecards for each partner will be deployed, aligned with the SC scorecard.

The general balanced scorecard proposed for S.C. ILDŢA SA is aligned with the SC balanced scorecard and will be deployed for each of the firm's major processes. In evaluating the firm's performance using the scorecard, Performance Dashboards will be filled for each process and the results will be used to elaborate the general organizational balanced scorecard.

For large and very large organizations, the scorecard deployment process can be continued on enterprise levels such as sections and work formations.

S.C. ILDŢA SA is a medium sized enterprise, thus a deployment to department level should be sufficient.

For the **purchasing process,** the table will be constructed starting with formulating the strategy and objectives for this department, aligned of course with the firm's strategic objectives and SC objectives.

As can be observed in the table below, for the purchasing process (Appendix 6) the **Performance Dashboard** focused on evaluating three aspects of the process, on three major axes: financial, quality and technology, and learning and stuff. Following the analysis of this major process, the weighted score shows large gaps (32.25 points) in the planned level for the year 2015 compared to the effective level (2010). There are multiple causes for this and they will be analyzed for each of the dashboard axes. The largest difference for the weighted score comes from the first axis, the financial axis, which indicates problems related to the cost of raw materials, and also to the cost associated with quality parameters of collected milk. The reason for high costs of raw materials milk is mainly due to the limited number of milk producers that conform to the increasingly strict UE requirements concerning the animal care conditions and quality parameters of collected and processed milk. Thus, the firm is forced to import raw materials milk or support the suppliers/partners in conforming to the new requirements (the firm already does this by supporting the investments of certain key partners in modernizing their farms/micro-farms), but each of these options requires additional financial resources. Concerning the quality and technology axis, the differences are the consequence of unsatisfactory quality of raw materials milk (that seems to either have lost its properties due to inadequate transportation conditions, or the bad quality was not identified during testing upon collecting), that doesn't meet the parameters required in production.

The building of the **production process Performance Dashboard** will start with establishing the strategy and strategic objectives for each dashboard axes, followed by the identification of measures aligned with these objectives.

As can be observed (Appendix 7) in the level of the weighted score for the **production process,** gaps are present on all four axes analyzed, and the causes for this will be presented below. For the financial axis, the gaps are due to the risk of nonconformity with the parameters required by the production process; for the quality axis, a cause could be the weakly defined procedures for production sub-processes and activities; in the case of technology and innovation, the low scores for research and development activity indicate a low capacity for innovation and new product introduction, that will attract and retain consumers on the market. Concerning the investment in acquisitions and modernizations of technologies and production and warehousing equipment, the firm is on a progressive plan, by planning investments for improving fixed assets (two large projects from European sources). The staff and learning perspective has a very large deficit to cover, because the production staff is not well trained and most often is not properly qualified, while there are no significant improvement and qualification programs. Also, the motivation through salary is low (net average income of 640 lei in 2010), especially when compared with the management (4055 lei).

For 2015, the gap to make is 117.80 points, meaning a total performance growth of 25.5 %.

For the **delivery process,** four axes **Performance Dashboard** will be built, ultimately oriented toward customer satisfaction, with objectives and measures aligned with those at organization and SC level. According to the weighted score below (Appendix 8), the **delivery process** has the largest gap between targets and effective levels for 2010. For the first axis, the financial one, purchasing costs remain at relatively the same level. For the customer axis, advertising costs reduction and the organization of promotions for the firm's products will have a smaller growth than the expected customer base and at a reduced loyalty level. Also here, a weak order management prevented reaching the customer orders fulfillment target, due mostly to inadequate skills of the distribution management team (in distribution process monitoring and control), as revealed by the staff and learning axis and the lack of training programs in the distribution department. The lack of order delivery activity control and monitoring translates into unsatisfied customers and an increase in the number of customer complaints and thus, into losing customers and additional costs with the return activity management.

The Performance Dashboards for the three major processes of S.C. ILDŢA SA are carefully filled and monitored by the process management team or the person appointed (project manager, process "owner") by the firm's management. The results of each process Performance Dashboard are then entered into the organizational scorecard, by the CEO or the firm's management team. Since the firm is a medium sized enterprise, the dashboards will be monitored monthly, and the general scorecard will be modified twice a year in order to avoid entering redundant information.

From the analysis of the weighted score from the S.C. ILDŢA SA Balanced Scorecard it can be observed an amplification of differences between planned and effective levels. For the customer perspective, the problem to be solved is related to the reduced capacity for new product introduction that would attract and retain customers, the low number of advertising programs and promotional campaigns that would lead to customer base increase and improved loyalty, but also to the lack of a procedural control for customer order delivery process that would reduce customer complaints. The internal perspective reveals major deficiencies in the interest for investing in research and innovation as a basis for the production process, leading to reduced competitiveness of the firm's products on the market. The growth and learning perspective reveals problems with both staff qualification and motivation through training programs and the remuneration program.

This kind of planning, by deploying **Balanced Scorecard** covering the major processes of the organization, will also have to be done by the project partner, S.C. Tonico General Com (Appendix 9)

Following the analysis of the results from evaluating the performance of the two organizations (Benchmarking) using the general Balanced Scorecard, the data and information will be transferred to the trans-organizational project team (including representatives from both partners, upstream in the supply chain) that will incorporate them in the supply chain Balanced Scorecard. Thus, the project team will meet monthly to analyze the results from the general scorecards of both organizations and based on this analysis, the team will update the level of indicators in the supply chain Balanced Scorecard and will study the gaps between their targeted and effective levels, and based on these gaps, the team will propose and establish improvement solutions and projects in order to reach the missed objectives and targets.

9.3. Measuring the Alliance Performance between Two Organizations to Promote Fast Moving Consumer Goods (FMCG). Case Study

9.3.1. Manufacturer/Distributor-Retailer Alliance Performance Measurement

The goal of Scorecard is to enable enterprises to assess the current capacity of ECR, to compare best practices with other businesses in the industry and to develop improvement targets and associated actions in promoting products.

Scorecards were designed to be applicable to a wide range of businesses, including: retailers, wholesalers, manufacturers and suppliers, suppliers of raw materials, packaging suppliers, logistics providers and transportation.

9.3.2. Development of the Process for Measuring Sales Promotion Performance

The design of the matrix of objectives

Manufacturers and distributors must ensure permanency goals in a consumer oriented optical (there are two main types: recruitment-fidelity) in the complementarily of strategies (category-brand-product). At high competition, the matrix serves as a reference to define or validate promotion techniques depending on the clients objectives and to chose common key performance indicators.

Short-term sales growth is a natural result found in a promotional operations, is the consequence of expectation of recruitment targets, of a more relevant fidelity law in an ECR initiative and in the response of the initial objective of promotion (recruitment / retention).

Defining the adopted techniques

Partners must choose promotional technique or a combination of these techniques that best meet common objectives. They use matrix objectives before select the most efficient operation.

9.3.3. Defining key performance indicators (KPI) of the impact of promotion

The matrix of objectives enables partners to identify and select key performance indicators, allowing performance measurement and comparare promotional techniques used in objective responses.

The main objective of implementation of ECR is to provide better value to consumers and thereby improve performance. Actual performance can be measured using a set of key performance indicators.

The committee for the Global Scorecard GCI chose a limited number of KPIs available for inclusion on the website GlobalScorecard.net in accordance with the following principles:

- KPI should provide information about the impact of ECR
- The data for these KPIs should be easy to collect
- KPI should be compatible with other industry-wide programs
- KPI should provide a measure of the benefits obtained by ECR.

The purpose of filling out a Scorecard is to generate business benefits and, therefore, it is appropriate to make a real business tracking indicators (KPI), in addition to scores on the capacity of the organization.

The set of KPIs differs depending on the type of business considered (retailer, wholesaler, manufacturer, supplier or jointly).

9.3.4. The common workflow for entry-level Scorecard and KPI

The purpose of this Scorecard is to provide an objective assessment of the extent to which companies work together in the supply chain/global distribution.

Technical Committee for Global ECR Scorecard measurement generated three models:

- Entry-level for those entering an alliance
- Intermediate-level, for the initiated
- Full-level, for those who have evolved collaborative management (transnational companies like Unilever, Metro, etc.).

For entry-level Scorecard and KPI, a single Scorecard passes several times from one partner to another, which may have a number of iterations until both parties agree on the scores and action plans. Scorecard can take one of four forms: drafts, edited by issuer, edited by trading partner, accepted by both partners.

Either of the two firms can edit an agreed Scorecard, where his status will change accordingly (with maturity, using entry-level can proceed to intermediate level).

Whenever an enterprise Scorecard status changes, an email message is automatically sent trade partner, warning him of the change of status.

9.3.5. Promotion optimization

The optimization approach involves aligning strategies to promote the needs and goals of each category, then selects specific products to promote, promotion planning and execution and measurement of the promotional event in line with this strategy.

The focus of the concept suggests that manufacturers and retailers will not ever get individual working efficiency, requiring a significant data between organizations to understand the costs and benefits associated with promotional activity. The savings generated by this concept vary by the extension of the promotion in the category.

Promotion optimization can be the most important concept in the demand side (Demand Side) of the ECR because:

- Most of promotional activities are recognized as generating waste.
- Manufacturers and retailers understand that promotions require a complex analysis.

- A more detailed analysis of the effect of promotions on consumer behavior can bring beneficial results.

Evaluation of the effectiveness of promotions
Promotion effectiveness assessment can be done in four areas:
- Defining promotional objectives
- Promotion production: internal and external promotional communication is as essential as the production of special packaging and promotional products
- Distribution and accurate placing of promotions
- Regular assessment of promotions.

Evaluating the effectiveness of promotions

It is important to identify efficiency improvements in the organization and the execution of promotions. Improvements are important in terms of cost savings and choice of alternative methods. Costs and total revenues should be clarified to better identify the promotions efficiency points.

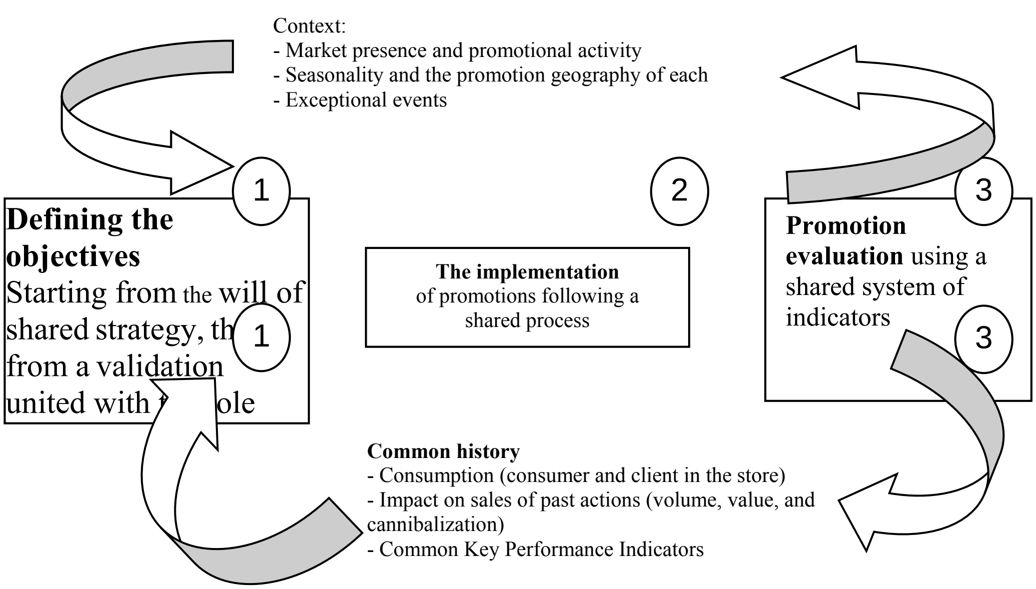
Calculations include specific promotional costs, and refunds, special packaging, printed promotional materials, special offers and department costs involved in promotion, both the manufacturer and the retailer. In addition to current promotions cost analysis it is necessary to evaluate suppliers and the promotion of alternatives and consideration of internal organizational issues, such as alternative of personnel, accountability of departments and trading partners and planning procedures.

Scorecard evaluates each organization's internal quality of planning and joint promotional activities.

Establishing a common promotion strategy

Structuring the joint strategy is done in an iterative process (Figure 9.9.): *(ECR France, 1999)*
1.Objectives are based on a common history given the context.
2.Promotions are implemented based on clear common objectives.
3.Implementation results are evaluated in context and feed a common history.

Figure 9.8 Structuring joint strategy in an iterative process



9.3.6. Case Study

Alliance Performance Measurement in Sales Promotion Collaboration Between EKO-MP LLC Ploiesti and INTEREX Târgovişte

Performance measurement of an alliance can be made between:
- Manufacturer - retailer (most often)
- Producer - wholesaler
- Wholesaler - retailer
- Manufacturer - supplier.

Using our European model of alliance performance measurement ECR Europe - Demand Side – for promotion optimization, we conducted a survey for the organizations (Popa, Palaghiu, 2008)
- Distributor - EKO - MP;
- Retailers - INTEREX.

The two organizations have decided to promote 4 Tymbark ROMANIA products: Tymbark Apricot Nectar, Tedi, Ciao and Tymbark Cool and to measure firstly the performance of promotion (effectiveness and efficiency) and then the performance of the alliance of the two organizations. Promotion period studied was 01/05/12 to 01/06/12.

Using the Scorecard of the European ECR Europe model (1997-1998) we developed the process - Optimizing promotions – on three sub-processes:
- Promotion Plan;
- Execution of promotions;
- Evaluation of promotions.

and specific activities of each subprocess.

In the Scorecard notes from 1 to 5 are given, based on the values of quartiles (first quartile - 25%, second quartile - 50%, the third quartile - 75%, fourth quartile -100%). For the uninitiated activity value is 0.

Note that the activities of promotional suprocesses are not the same for retailer and distributor.

Measuring performance of each organization and alliance (effective promotion policy) was done starting from the European model of Global ECR Scorecard (Torino 2000 version), where the standard of 100 points is fixed (Appendix 10) for promotion optimization.

The summary interpretation of product promotion alliance performance of Tymbark Apricot Nectar, Tedi, Ciao and Tymbark Cool reveals the following:

1. Participation in the alliance of the EKO-MP distributor has a total degree of maturity of 67.5 points out of a total of 100 points as the ECR Global Scorecard (Appendix 11), which shows that participation in this organization is advanced in the management of demand – the increase of sales in quantities through promotion.

In detail, for the subprocesses of planning and evaluation of promotions, the organization made a better service: 30 points out of 40 (75%) for planning and 22.50 points out of 30 (75%) for evaluation. The subprocess execution of promotions is less good - where the participatino of the organization is measured by 15 points out of 30 (50%).

2. Participation in the alliance of INTEREX retailer has a total maturity of 50.75 points out of 100 points (Appendix 12), 16, 75 points less than EKO distributor. The organization has good service for the subprocess evaluation of promotions, but inferior to the services provided by the distributor: 19.5 points out of 30 points (65%). Running promotions has a degree of maturity of 14.25 points out of 30 (48%), almost the same as the distributor. Promotion planning subprocess has a degree of maturity of 17 points out of 40 (42.5%).

3. Joint participation of the distributor and retailer in the alliance has a total maturity of 51.87 points out of 100 points (Appendix 13). It is noted that for the planning and evaluation of promotions were made 20 points out of 40 points (50%) and 21 points out of 30 points (70%). Subprocess execution of promotions registers a very low degree of maturity: 10, 87 points out of 30 (36%).

Sales promotion is one of the most important elements of the promotion marketing mix of a company. The most important promotional tools - advertising, sales promotion and public relations - contribute to reaching the communication objectives of the company. They are considered tools of mass marketing, as opposed to personal selling, wich is targeting certain customers.

To maximize return on investment in promotional, marketing operators should adopt the concept of total promotion, combining resources, strategies, planning and implementation of the chosen communication mix.

Initiatives such as Efficient Consumer Response (ECR) and Collaborative Planning, Forecasting and Replenishment (CPFR) were concerned to promote more cooperation between producers and distributors. A strong collaboration axis used in demand management is sales promotion.

9.4. Performance Management of Supply Chain Using Balanced Scorecard in Nonprofit Organizations

Introduction

In order to better understand the performance management of the supply chain of the nonprofit organizations, we need to identify this type of organization, its characteristics and role in the society. Nonprofit organizations are not sinonimous with nongovernmental organizations even though some authors define them this way. Nonprofit organizations include governmental and nongovernmental organizations and serve public purpose, but there are some differences between a governmental nonprofit and non-governmental organization such as:

- The latter is organized on a local, national or international level
- Enjoys special treatment under the law
- Sources of revenues are mostly from public donations
- It is governed by a group of voluntary citizens
- Work is done mainly by volunteers.

NGOs engage in two broad types of activities:

- Relief activities – short-term activities
- Development activities – long-time activities (*A2Z: The USAID Micronutrient and Child Blindness Project 2005 - 2011*).

Some NGOs are concerned with relief, some with development, and some address both areas.
Nonprofits compete – sometime indirectly, sometimes more directly and intensely – on a variety of fronts, against business and governments as well as against one another (La Piana, D., 2005) competition being necessary for survival and success. The increasing importance of nonprofit organizations in the majority of modern economies not only as suppliers of goods and services, but also as employers lead to the awareness that these need management as any other type of organization. Nowadays, nonprofit organizations need focus and adequate performance management tools in order to become efficient and to prove their impact. The need for a performance measuring system may be justified, among others, by the fact that the decisions regarding resource allocation must be taken on a clear, fundamental basis, using the so called performance management system.

9.4.1. Supply chain in NGOs

A supply chain is the stream of processes of moving goods from the customer order through the raw materials stage, supply, production, and distribution of products to the customer. *Use of the SCM concept entails that the links in the supply chain plan and coordinate their processes and relationship by weighing the overall efficiency and competitive power of the supply chain (Jespersen, B.D., & Skjött-Larsen, T. 2006.)* All organizations have supply chains of varying degrees, depending upon the size of the organization and the type of product manufactured. These networks obtain supplies and components, change these materials into finished products and then distribute them to the customer. Managing the chain of events in this process is what is known as supply chain management.

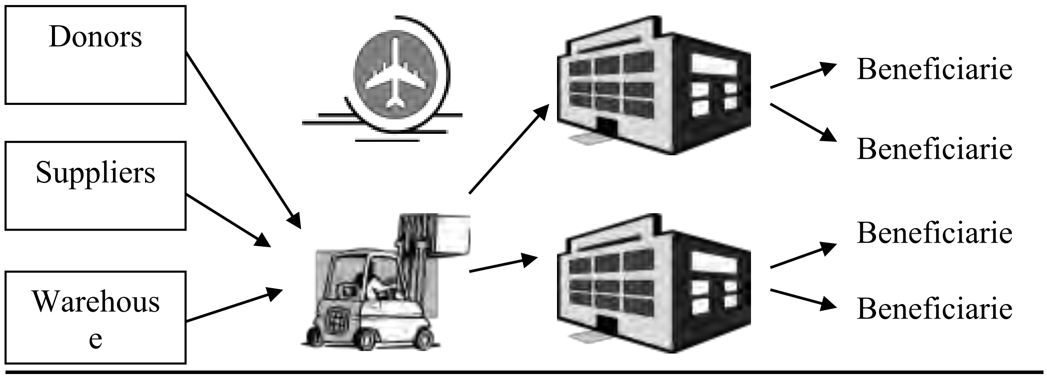
Most NGOs typically have several different and parallel supply chains—e.g., food relief items, non-food relief supplies, food for development activities, non-food for development activities. Many NGOs do not have formal supply chain units within their organizations and if they do, they are often in the early stages of development. All of the supply chain segments can be served by a common organizing principle, nomenclature, terminology and process. There may be different approaches to executing a process based on the segment, however, the basic structure and over-riding organizing principles can be standard.

Food and nonfood supplies that flow through the supply chain of an NGO usually consist in prepositioned stocks in warehouses, items purchased from suppliers and donations from individuals or other organizations.

They are sent from different locations to a main warehouse situated near a port or an airport. Then they are shipped to a secondary warehouse located in a larger city. Here the supplies are stored, sorted and shipped to a third warehouse, called local distribution center. From here the supplies are finally distributed to the beneficiaries (Figure 9.10.).

Supplies acquired from local sources may be distributed directly to the beneficiaries

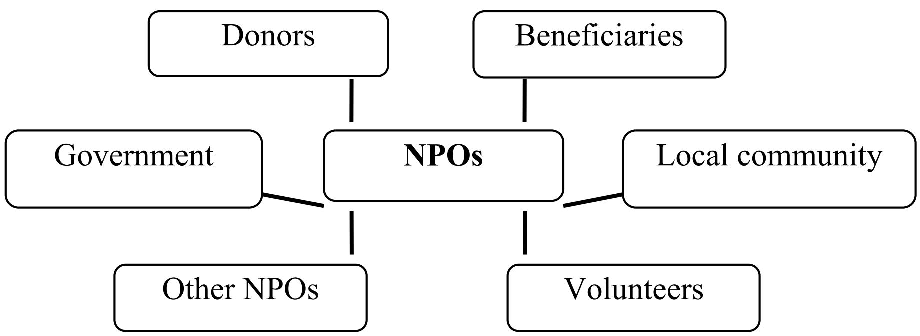
Figure 9.9. Nonprofit organization's supply chain



Characteristics of nonprofit organization supply chain

Between the supply chains of NGOs and those of business organizations there are some similarities in terms of structure and logistic activities, but there are some differences because of the unforeseeable, chaotic and dynamic environment where NGOs operate. One of the major differences consists in their mission: nonprofit organizations have as a mission achieving their social goal and the private ones aim for profit. Financial constraints and the multitude of stakeholders represent major differences between NGOs and business organizations (Figure 9.11.).

Figure 9.10. Stakeholders of a nonprofit organization



Demand characteristics represent another difference between those two types of organizations. While for an NGO the demand refers to supplies and people, in private organizations demand consists in products and services. Type of demand, size and location are unknown at the moment of an emergency situation and the requested supplies can vary based on factors as social and economic conditions of the area, demographic structure and the impact of the produced event. Customers for an NGO are the beneficiaries of the humanitarian aid and they cannot afford the luxury of selecting a specific market.

The collaborative management of Alliance

Our proposal is the collaborative balanced scorecard between two organizations.
The building process of the collaborative scorecard for Efficient and Effective Customers Response alliance between two organizations always begins with establishing of a clear strategy. This strategy has to be a inter-organizational project and has to offer the opportunity, for the player from different processes and organizations to cooperate in order to establish common objectives. Once that the team members established the common strategy, they can move forward to build the collaborative scorecard aligned to this strategy.

We can understand the collaborative management compared to the commune flight of two jets. Each pilot has his own control panel in the cockpit used to manage his own flight (with his own objectives about altitude, speed, number of loops, optimal use of the airplane), but as a participant to the air show he has to follow some commune objectives of the team show (To make a fabulous program for the public entertainment).

Supply chain management in NGOs

NGO logistics is defined as ''the process of planning, implementing and controlling the efficient, cost-effective flow of goods and materials as well as related information, from point of origin to point of consumption for the purpose of meeting the ultimate requirements of the end beneficiary.

The efficient management of the supply chain is based on problem anticipation and identification as they arise, and the delivery of specific supplies at the right time exactly where needed. When making decisions regarding required supplies one must take into account the cultural specificities of the country regarding food habits, climate, and also one must identify the cultural and ethnic minorities in order to prevent any form of exclusion.

The problems an NGO confronts are numerous and hard to deal with such as: inappropriate donations, preventing looting and pilfering, deployable logistics systems, logistics of information flow, facilitating movement of people and aid, and so on. Also, regarding the management of the supply chain, the nonprofit organizations are often in difficult situations because they confront a lack of resources, a lack of investments in technology, and managers who do not have experience in management, having backgrounds in the social fields. Also, the supply chain is unstable, and the location is often unknown and the demand hard to predict.

Humanitarian logistics involves organizational components such as procurement, transportation, warehousing, inventory management, trace and tracking, bidding and reverse bidding, reporting and accountability. In the corporate sector, these components are supported by expert staffing, know-how, IT systems, MIS systems, framework agreements, corporate relationships, infrastructure, standardization and collaborative initiatives. In the humanitarian world, these key support mechanisms are rare.

9.4.2. Supply chain measures for a nonprofit organization

A performance metric represents a quantified data that measures total or partial efficiency/or effectiveness of a process or system, in relation with a standard, a plan or an objective determined and accepted within the strategic frame of the organization (Avasilicai, S., 2001). A supply chain metric must be based on a data set or a fully-understood documented process for transforming data in metrics. For translating a measure it is necessary to compare it with a pre-established objective. Objectives must be clearly articulated for each metric and represent a challenge for employees. *The right set of metrics can tell you how well each plan, source, make, deliver and return supply chain process is performing, highlighting where there's room for improvement, and help you to diagnose problems and decide where to focus your improvement efforts (Cohen, S., & Rousell, J.,ff 2005)*. The measures must be formulated taking into consideration the actions and behaviors that will be generated after. The questions that arise when formulating measures are:

- Performance measures vary with perspective. From whose perspective do we optimize?
- Cost measures – who pays, who donates?
- Benefit measures – who gets credit, who receives aid?
- Teaming aspects – is win/win possible, from whose perspective?
- Gaming aspect - Who controls the decisions that influence the cost of transport?
- Whose budget is affected by these decisions?
- What is the effect of these decisions?
- Who determines what gets sent where and when, by whom?

Sporadic measurement is better than never measuring at all and it is also critical to know what to measure and what not to bother with. Metrics add value when you do something with them. Measurements should be communicated clearly, early and often (Ackerman, K.B., & Bodegraven, A.V., 2007).

Strategic performance management

Strategic performance management represents a process through which the organization manages its performance, an aligned process to organizational and functional strategies and objectives. There are a lot of instruments and activities within the organization which contributes to that goal. These may include: defining of organizational objectives, priorities and values.

In the process of defining of a balanced scorecard, the steps to be followed in order to achieve the strategy explain the organization's strategic step to create new value. In other words, balanced scorecard has to be seen as a navigating instrument which helps to draw the way the organization will sale in order to achieve the strategy.

Supply chain metrics for NGOs

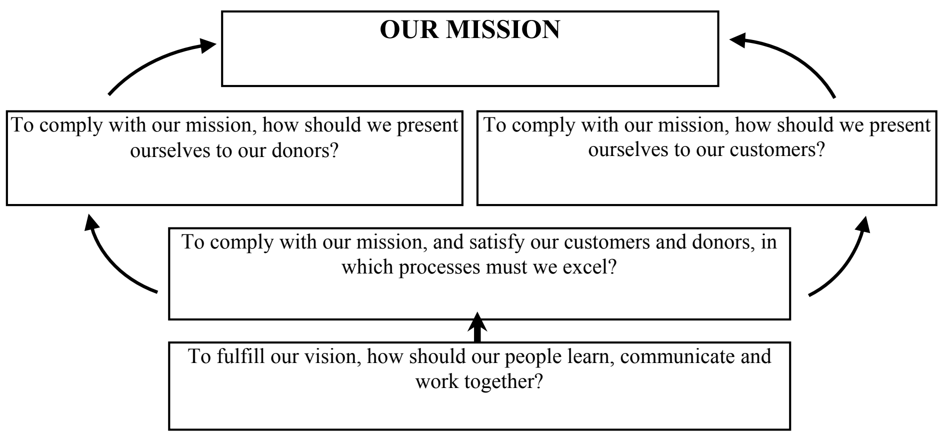
Metrics for a supply chain of an NGO must cover all the processes of the supply chain: procurement, purchasing, sourcing, forecasting, logistics, and distribution, etc. Examples of supply chain metrics are as follows: self-serving – organization/capability/market oriented; budget used; number of volunteers; tons delivered; order (early vs. late arrival on-site); publicity (e.g. media coverage / mentions / photos); new donations; lives saved; delivered tons used (e.g. meals served, tents lived in, etc.); health care provided; cost; money; loss/leakage.

9.4.3. The Balanced Scorecard (BSC)

BSC, invented by Kaplan and Norton in 1992, is one of the most powerful management and measurement systems that emphasize the linkage of measurement to strategy and the cause-and-effect linkages (Figure 9.12.). It considers four different perspectives to evaluate a business, which are Financial, Customer, Internal Processes, and Learning/ Growth.

While the Balanced Scorecard approach was not specifically designed for the Supply Chain, it does give a good guidance for your core measures. The central idea is to focus on key metrics that have real meaning to your company. You don't want to get lost in a sea of numbers that don't really mean anything.

Figure 9.11. BSC framework adapted for nonprofit organizations



Source: The Strategy-focused Organization, Kaplan, R.S., Norton, D.P., 2001

The Balance Scorecard provides the required framework for an organization to move from the decision of having a strategy to its application. And BSC approach helps the organization to keep the measures aligned with strategic objectives. These measures should be tracked over time (usually monthly) with specific targets for each.

Developing balanced scorecards in not-for-profit organizations *(Niven, R.P.,2002)*

When implementing BSC in nonprofit organizations it is reasonable to use multipurpose approach. It would be wrong to use Balanced Scorecard in nonprofit organizations in the same way as this system is used in commercial companies. Financial goals and criteria can hardly play the most important role for a nonprofit organization. As long as nonprofit organizations have a mission they can certainly use Balanced Scorecard to communicate operational activity and strategic goals, vision, values and mission.

One of the issues identified with applying the Balanced Scorecard to public-sector groups was the possibility of no "burning platform for change" necessitating the development of a performance measurement system. The same cannot be said of not-for-profit organizations. Clearly, the landscape facing most not-for-profits is changing rapidly, signaling the need for transitions to take place. Among the chief threats is the increasing number of competitors each vying for scarce donor contributions. Further, contributors increasingly demand that a high percentage of their donations actually reach recipients and are not gobbled up by administration costs. In such an environment, even not-for-profits with the noblest of missions are forced to examine their managerial practices in search of methods ensuring they are able to continue meeting the needs of the many constituents relying on their help each and every day.

In a number of ways the not-for-profit Balanced Scorecards share a great resemblance. Neither organization claims financial objectives as their reason for being, but instead looks to serve constituent needs in both a humane and efficient manner. For that reason, mission—not financial objectives—appears as the overarching objective of the measurement effort. Customer objectives are next, followed by internal processes, financial, and employee learning and growth (some place financial at the bottom of the framework). The two groups also share many of the same issues impeding the successful development of a Balanced Scorecard: results that are not easily measurable, lack of control over variables, and technical constraints, to name just a few.

While many similarities exist between the two groups, not-for-profits face some issues that make the development of Balanced Scorecards particularly challenging. One such challenge is the background, experiences, and motivation of most not-for-profit employees. As distrustful as public-sector employees may be of businesslike solutions, not-for-profit employees share not only the lack of trust but, for the most part, will have virtually no prior exposure to efforts of this ilk. Lack of knowledge and potential distrust leave a huge void for fertile imaginations to fill with negative perceptions toward the measurement effort. The lack of trust and knowledge can manifest itself in a variety of ways including the insistence that a performance measurement initiative is time consuming and will drain resources from all important service delivery, which renders the effort unworthy of attention. Not-for-profit executives and managers, perhaps more than those of any other organizational type, must invest extraordinary effort at the outset of measurement projects explaining the background of the methods to be used, the process to be followed, and the benefits to be derived. Only through constant communication (which is a must in any implementation) will not-for-profit employees be expected to really understand and embrace these tools.

A characteristic differentiating not-for-profits from most other organizational types is the premium they place on involvement and group decision making. Engaging employees in the development of innovative performance measures that will lead to the achievement of their mission can unleash reserves of creativity previously unknown in even the most enlightened organizations. It's not that including a wide range of people in developing measures is inherently bad, but when you try to please everyone and make every decision based on consensus, trouble appears. In an environment where everyone's opinion is sought and attempts are made to satisfy all, the end result can be diffusion of responsibility, confusion around measures and objectives. Not-for-profit executives with the best of intentions attempt to develop Scorecards based on the wants and needs of all but end up with a product that pleases and inspires no one. To overcome this problem, executives and managers must exercise strong leadership. Encouraging input and involvement is one thing, but leaders must make it clear that they own the organizational Scorecard and will make the final decision on what measures are critical to the not- for-profit's ability to meet its mission. Doing so clearly communicates the organization's direction to all employees, but does not preclude active and participative dialogue between leaders and staff.

Implementing the Balanced Scorecard offers many opportunities to a not-for-profit organization. Increased focus on the mission, accountability for results, and alignment of human and financial resources toward overall objectives can all result from the development of a Balanced Scorecard. Kaplan and Norton have even gone so far as to suggest that "*the opportunity for the scorecard to improve the management of governmental and non-for-profit enterprises is, if anything, even greater*."

Developing not-for-profit Balanced Scorecards presents some unique challenges not often encountered in the profit-seeking enterprise. Activities that seem "unmeasurable," conflicting or confusing missions, public misperceptions of results, staff background and skills, and fickle elected officials are just some of the many problems that must be conquered. Despite the challenges, an ever-expanding group of agencies have built Scorecards and are benefiting from the new management practices it heralds.

BSC perspectives

The scorecard provided a framework for organizing strategic objectives into the four perspectives:

1.Financial-the strategy for growth, and profitability viewed from the perspective of the shareholder. This perspective is often called "Budget" or "Resources".

2.Customer-the strategy for creating value and differentiation from the customer's perspective; this perspective is populated after the identification and examination of all the stakeholders; *Perceptions generally about who the end customer is may vary along the supply chain (Harrison, 2001)*.

3.Internal Business Processes-the strategic priorities for various business processes that create customer and shareholder satisfaction.

4.Learning and Growth-the priorities to create a climate that supports organizational change, innovation, and growth.

The greatest characteristic of the Balanced Scorecard is its adaptability; an organization is able to choose the appropriate perspectives. Some organizations can choose to divide the Client perspective in two, one for clients and the other one for stakeholders.

A well constructed BSC must describe how the organization works and what is critical for its success, through a number of objectives and measures linked across the four perspectives (Niven, R.V., 2003).

The control panel

The former researches refer to the management and performance measuring of alliance using indicators which shows that working together is a consistent thing. This consistency may be introduced into an ax of working processes together (*Kaplan, S. R., Norton, P.D., 2006*)

David Norton and Robert Kaplan describe in *Alignment* the control panel of the scorecard of Brewer and Speh. According to these, a certain type of control panel for scorecard doesn't apply for every scorecard. The control panel created to reduce the production, delivery and merchandising costs for common products with predictable demand has other objectives than the control panel for special products. Some control panels need reduced costs and a high speed of inventories, while others need flexibility, short response time, accuracy in prevision and innovation.

The collaborative balanced scorecard between an organization and their suppliers

The building process of the collaborative scorecard for ECR alliance between two organizations always begins with establishing of a clear strategy. This strategy has to be a inter-organizational project and has to offer the opportunity, for the player from different processes and organizations to cooperate in order to establish common objectives. Once that the team members established the common strategy, they can move forward to build the collaborative scorecard aligned to this strategy.

A tool capable to operate both into different structures / substructures of the alliance and to integrate each of these structures' efforts in order to be aligned to the objectives of the purchasing-distribution chain is the version of the balanced scorecard presented. The balanced scorecard formally connects the alliance's global objectives with the chosen strategies for achieving these objectives using some general indicators of performance measuring.

Those objectives, strategies and measuring indicators at alliance level could be aligned at organizational level. Here, the organizations develop objectives, strategies to fulfill these objectives and alliance's performance measuring indicators. This process is repeated at the level of the axes of interest from the organizations members of the alliance.

The instruments of performance measuring are difficult to define and, especially, to measure. A few among these instruments offers a clear image about the global performance, underlying the performance problems or identifying the improvement opportunities. Among all the strategic objectives of alliance performance, the most efficient due to system understanding, which influence behaviors along the system and offers information about the efforts of alliance members, are alliance's deliver disponibility, its responding speed and eligibility.

These strategic objectives for measuring the ECR alliance's performance may be thought as the essence of the alliance, represented graphic as two circles which contain the vision and strategic objectives. These are the management of organizations which form the alliance.

In order to implement a scorecard for the alliance, as a leading tool of the alliance chain performance, we'll start from the vision defining, major objectives and their targets at which they'll align the own strategies, targets and strategic objectives following that each company to develop measurements and indicators for their own scorecard. Every organization's target, objective and action are created to support the common strategy, and KPI derive from the strategic objectives. Each scorecard is integrated and aligned to the common scorecard.

There are a lot of people which believe that "if you cannot measure a phenomenon, then you can't control it". At this moment of time, some measurement systems provide a clear image of the global performance, underlying the causes of performance problems or the improvement opportunities. The reason is simple: it is difficult to realize a robust and useful measuring program. Establishing of an agreement between the companies regarding what has to be measured, about defining the chosen measurement system and how often the measurement should be made may imply a very big effort. Also, the manager commitment on the fundamental proposal of measuring program could be the most controversial activity of all.

At the highest level, alliance's operations are expected to contribute at the company's financial performance. For that, the performance's measuring tools has to accomplish three major objectives: first, it has to transform financial objectives and target into efficient measurements of operational activity. Second, it has to transform the operational performance into exact future previsions of incomes or sales. And, third, it has to lead behaviors into the allied organizations which sustain the global strategy of the common business.

Measurement is the only way to verify if the performance of the processes increases or decreases and if is necessary to take supplementary actions. Much too often, the companies find out about the problems regarding the success or failure in achieving the objectives after these are happening, in the moment when the income decreases, the customers run to the competition or when the result decrease under the expectations.

The benefits of using BSC

The Balanced Scorecard represents a group of indicators that provide a readable and interpretable presentation, with a regular periodicity (Popa, V. 2005). The benefits of using BSC in nonprofit organizations identified by the creators of BSC are:

- Allows nonprofit organization to create a bridge between strategy and daily operational processes
- Supplies a strategic orientation, aligning resources, initiatives and financial support with organizational objectives
- The measuring system changes the organization focus from programmes and initiatives to outcomes that must be accomplished
- It offers alignment between initiatives, departments and individuals
- Efficient fund allocation
- Quality products/services to target customers
- Improving customer satisfaction
- Attraction of new sponsors/growing donations
- Optimizing internal processes aimed at implementation of strategic goals
- Adherence to missions and values of organization.

Cascading BSC

Cascading is the process of developing balanced scorecards for every level of organization…it facilitates learning allowing a bidirectional information flow up and down the organizational hierarchy (Niven, R. V. 2003).

The organizational Balanced Scorecard represents the starting point in cascading process. Overall supply chain objectives and strategies undertaken to meet these objectives are linked with the supply chain performance measures through Balanced Scorecard. Objectives, strategies and performance measures at the supply chain level can then be linked to the organizational level. Supply chain Balanced Scorecards are created for each organizational unit, department, team, and individuals involved in the supply chain and they will align with the organizational balanced scorecard, identifying objectives and measures to be monitored for gauging their contribution to the general success. The role of balanced scorecards it is critical for the decisional process, resource allocation and strategic learning.

Table 9.4. United Way of Southeastern New England Balanced Scorecard

Perspective	***Outcomes***	***Strategic Objectives***
Financial	External Growth	- Increase net amount of funds raised
	Internal Stability	- Balance Internal income and expenses to maintain our 100% guarantee to others
	Community- Building	- Increase amount of funds that go to the services -Increase amount of funds that go to the proprietary products

Customer	Customer Satisfaction	- Recognition - Ease of giving
	Market Growth	- Products that customers care about and that will improve the community
	Customer Retention	- Information on results - Quality, timely service
Internal	Key Internal Business Processes Based on Quality	- Improve key internal processes in the following areas: Fundraising; Fund Distribution; Community-Building; Information Processing /Communication; Pledge Processing; Product Development; Volunteer/Staff Development; Customer Service; Interdepartmental Communication
	Develop innovative products	- Develop a research and development process to come up with new, innovative products
	Maintain Viable Product Line	- Develop a consistent process for evaluating existing products and services
Learning and Growth	Employee Productivity - Training and development - Technology - Team - Open and effective communication - Agency assistance - Employee ownership and involvement	Employee Satisfaction

Source: The Strategy-focused Organization, Kaplan, R.S., Norton, D.P., 2001

9.4.4. Example. A nonprofit organization that adopted Balanced Scorecard

Many nonprofit organizations as well as government have adopted successfully the Balanced Scorecard such as *The United Way of Southeastern New England (UWSENE),* (Table 9.4.).

It was among the first to develop a Balanced Scorecard for a nonprofit organization. United Way organizations enable individual donors to contribute, in a annual consolidated campaign at their workplace, to a wide range of human service programs in their communities. United Ways have three primary choices. They can be donor-focused, agency-focused, or community-focused. Each of the three strategies is good, with the potential to yield positive results… Many United Way switch strategies say to meet specific community needs, for very good reasons but then are surprised when their agencies and donors get upset. UWSENE has definitely become a donor-focused believing that IF the donors are satisfied, then agencies will be provided for. That is why we chose the donor as the primary customer on the scorecard (*Kaplan S.R., Norton P.D., 2001*).

9.4.5. Implementing a performance management system

Performance management can be defined as a systematic process for improving organizational performance by developing the performance of individuals and teams *(Armstrong, M., 2006).* A performance measurement system is the concrete tool designed to quantify performance…a set of connected measures or key performance indicators designed to quantify the efficiency and effectiveness of an action *(Kotzab, H., et al., 2007).*

In order to implement a performance management system it is necessary to follow the steps:

1.Set supply chain strategy objectives – developing supply chain objectives to support the strategy.

2.Choose metrics and targets that support the objectives – identifying the specific metrics and targets to monitor progress.

3.Identify supporting initiatives – performance-improvement programs to support achieving of supply chain objectives.

4.Implement the programs – gather data and develop tools for reviewing data and to support the decision making process.

In building a balanced scorecard, the first step is transposing of the mission, values, vision and strategy (Table 9.5.). For each perspective the balance scorecard team develops objectives, measures, targets and initiatives. Targets must be aggressive, but achievable and must have an owner. Initiatives must be chosen in such a way that only those initiatives which lead to the objective accomplishment be selected.

NGOs confront increasing pressure from donors and governments regarding their accountability for the impact and quality of the programmes they develop, resulting in a critical need for measuring performance. Given the fact that logistics represents the centre of NGO operations and the most expensive part, measuring the performance of supply chain became crucial for all the nonprofit organizations.

The Balanced Scorecard of the supply chain can have numerous benefits in an NGO activity. This approach allows management to align the core metrics of the supply chain with the general objectives of the organization, being a good method of focusing on the key indicators that have a direct influence on the organizational performance.

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Table 9.5. BSC for NGO Supply Chain

Mission, Values, Vision, Strategy

Perspectives	Objectives	Measures	Targets	Initiatives
Customer Perspective	Supplies delivered on time	Nr. of items delivered on time	Delivery in 24 h	Local transporters
	Customer satisfaction	Nr. of complaints	10% reduction of complaint number	Fair assessment of customer needs
Stakeholders Perspective	Donor satisfaction	Financial briefing	Monthly financial briefing	Financial reports/ project status
	The influence of the Foundation	Marketing strategy	Continue building brand awareness	Graphics and increased exposure
Internal Perspective	Unsolicited goods	Nr. of unsolicited goods returned	20% reduction of unsolicited goods	Tracking system
	Provision on time	Tons of food on time	20% delay reduction of food provision	Local warehouse
Financial Perspective	Cost reduction of supplies	Amount saved per item	20% cost reduction per item	Local partnership
	Revenue growth	Nr. of fundraising events	10 fundraising events/year	Local and regional advertising
	Improving personnel competencies	% personnel needs training	30% increase in competencies	Training programs for volunteers

At the highest level, alliance's operations are expected to contribute at the company's financial performance. For that, the performance's measuring tools has to accomplish three major objectives: first, it has to transform financial objectives and target into efficient measurements of operational activity. Second, it has to transform the operational performance into exact future previsions of incomes or sales. And, third, it has to lead behaviors into the allied organizations which sustain the global strategy of the common business.

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