E-Commerce Project Management Implementation

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The term eBusiness and eCommerce have many definition in IT fields. One of them is that the ***eBusiness*** is the integration of a company's business including products, procedures, and services over the Internet [ANIT00]. Ussualy and in practice a company turns its business into an eBusiness when it integrates the marketing, sales, accounting, manufacturing, and operations with web site activities. An eBusiness uses the Internet as a resource for all business activities.

E-Commerce project management means more than a simple project management because we are talking about particular features or characteristics of eCommerce activity. The CEO – Chief Executive Officer and staff are concerned not only about eCommerce activities but also about the integration of eCommerce projects and their management with all the important departments and activities from a company.

The companies and corporations that are involved in "normal" Businesses to Business – B2B and Business to Client – B2C activities become eBusinesses when the organization succeed to integrate standard activities with their electronic information system. This electronic information system could be an outsourcing solution for web and mobile sites or portals or an "in house" developed system. For example, someone who work in sales department could consider the web and wap – wireless application protocol – site a sales tool.

Purchasing uses the web to obtain prices on necessary components and place orders, and Shipping uses the web to schedule deliveries and notify customers of product arrival. So if a company "is making" in eBusiness way, then for each department the web site, wap site and electronic infomation distributed open systems are important tools they can use to be "number 1" in business. E-Commerce in the previous case has an important role in sales and accounting department but is bound with all departments concerning the input/output information that can provide. The customer or the company's client use eCommerce "channel" for achieve services and products, faster, more secure and with less costs than before.

Also, someone who is involved in *eCommerce Project Management* has to take care of and to be connected with following fields-departments: package selection, business intelligence, knowledge management, customer relationship management, project portfolio management, services-application-solutions development and research, process improvement, audit management and human resources management; especially if these tasks are in a big enterprise environment.

Package selection – some software companies have already focused on several real business problems. They created some remarkably solutions in markets like Supply Chain Management (SCM), Customer Relationship Management (CRM), Enterprise Resource Planning (ERP), E-Procurement, e-Commerce and m-Commerce – mobile commerce. It is difficult to choose and select the proper software/hardware solutions from the given number of vendor and choices.

The challenge for a company is to select the vendor and package solution from hundreds of products, philosophies and solutions in order to make the right choice when implement them. *The solution* is designed to provide to the company the resources on how to confront with the challenges – processes and methodologies, tools – templates and software/hardware, and an opportunity to learn from what others have done – articles, books and discussions [PACK04].

In real life every eCommerce project, even every project, is restricted in different ways by its:

- Scope objectives
- Time objectives
- Cost objectives
- Quality objectives – client satisfaction

It is the project manager's duty to balance these three often competing goals. The idea of this constrains is depicted in figure 1:

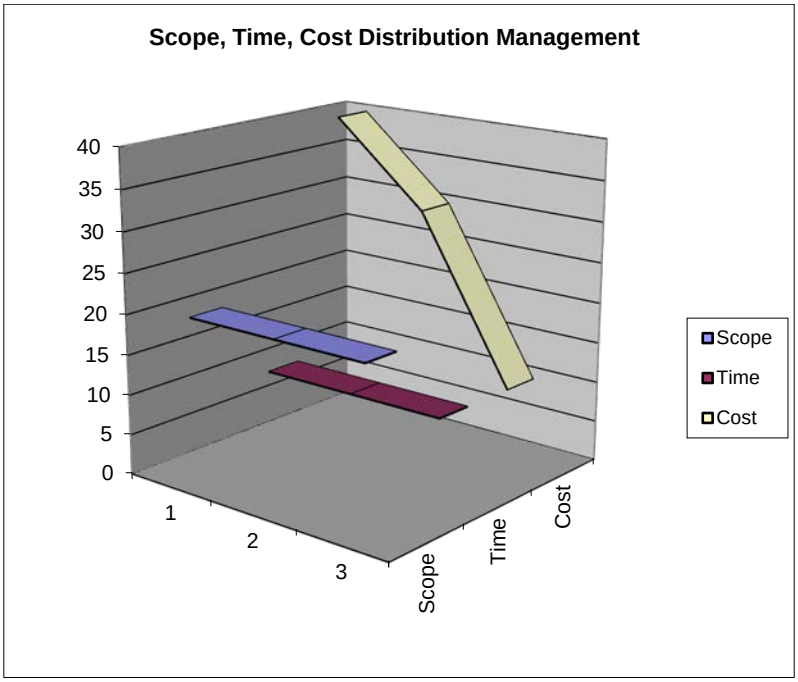

Figure 1: The Triple Constraint of Project Management.

Project management is "the application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project" [PMBK96]. So now we have the idea what means at least conceptual a eCommerce Project Management.

The framework of eCommerce project management contains briefly the following knowledge areas: ***Scope Management, Time Management, Cost Management, Quality Management***, *Human Resources Management, Communication Management, Risk Management, and Procurement Management*. Those knowledge management areas are bound through ***Project Integration Management*** using appropriate tools and techniques.

Project Plan Execution involves managing and performing the work described in the Project Plan Manual. The majority of time and money is usually spent on development and deployment. The application area or the project directly affects project execution because the services offered by the project are produced during execution.

Overall change control involves identifying, evaluating, and managing changes through the project life cycle. Three main objectives of change control: influence the factors that create changes to ensure they are beneficial, determine that a change has occurred and manage actual changes when they occur.

Before discuss in further details about eCommerce models and implicitly ePayments models is better to have a general view about eCommerce architectures on level of beginning of the year 2004:

- ***Conceptual Frameworks***: REA Meta model, UMM;
- ***General Frameworks***: Biztalk Framework, Building Blocks, ebXML Technical Architecture, FIPA, eCo Framework Specification, IMPRIMATUR Business Model, STEP, Java EC Framework, J2EE Framework, MPEG-21, OMG eCommerce Domain Specifications, Open-edi Reference Model (ISO 14662), SPIRIT, TOGAF;
- ***Trading Models***: Ad Hoc Functional and Process Models, Global Commerce Initiative & Protocol, cXL, Internet Open Trading Protocol (IOTP), Open Applications Group Integration Specification, Open Buying on the Internet (OBI), OBI Express, RosettaNet, Secure Electronic Market Place for Europe (SEMPER);
- ***Payment models***:
  - ***Macro-payment electronic schemes***:
  - ***Micro-payment electronic schemes***:
- ***Mobile commerce models***: OMA – MeT.

There is no software product in our days which dominate the market. A thing common in practice is to analyse which model or framework will be choose. Any eCommerce project/solution have o provide at least to parts: “online shopping” and “online purchasing”. So if for “online shopping” is enough to have a good organized web application or portal solution, for “online purchasing” – ePayment is more complicated. Usually if eCommerce solutions are forced to work with banks they have to include credit card schemes of macro-payment models. So this are constrains so the manager is faced with serious problems because he can not choose the proper technological solution for his problem.

SET is a security specification designed to protect credit card transaction on the Internet. It is not a payment protocol but rather a set of security protocols for users to carrying out credit card transaction in an insecure network such as the Internet. It is supported by a wide range of companies including Visa, Master card, Microsoft, Netscape.
The SET Participants as they are described in original document specification are:

- *Cardholder* – an authorized holder of the credit card issued by the issuer;
- *Merchant* – a person who has some goods/services to sell;
- *Issuer* – a financial institution that issues the credit card;
- *Acquire*r – a financial institution that establishes an account with the merchant and process payment card authorizations and payments;
- *Payment gateway* – connected to the acquirer, the payment gateway interfaces between SET and existing payment networks for carrying out payment functions;
- *Certification authority* – an trusted authority which issues X.509v3 certificates.

The steps of a **dual signatures** are:

- The message digests – using one of MD5, SHA-1 message digest function – of PI and OI are found : PIMD=MD(PI), OIMD=MD(OI);
- The message digests are combined and the resultant message digest is found: POMD=MD(PIMD +OIMD);
- POMD is encrypted by using the customer’s private key to produce the dual signature: DS=E(POMD, private_key).

The project management is responsible for the selected solution and has to take in account the characteristics of ePayment schemes:

- System security – ability to protect against various forms of fraud e.g., repudiation and authentication in payment process;
- Transaction cost – the big expenses needed to process the payment;

- Traceability of payment – ability to find out who has involved in the payment;
- Acceptability – whether the payment can be accepted in different environment e.g., not only by the issuer;
- Transferability – the ability to transfer payment without the need of a third party e.g., a bank;
- Divisibility – the ability to divide a value V to an arbitrary number of smaller values - "banknotes" with a total value of V.

Now is obvious that a project manager have the responsibility to delegate the most qualified people to advice him about adopted solution and to realize that a better knowledge in eCommerce and management fields ensure him or her the success or insuccess of an eCommerce project management.

In conclusions, a good project management of eCommerce solutions determines a way for a user interface friendly.

Some advantages of a proper project management are:

- Good project management provides assurance and reduces risk;
- PM provides the tools and environment to plan, monitor, track, and manage schedules, resources, costs, and quality;
- PM provides a history or metrics base for future planning as well as good documentation;
- Project members learn and grow by working in a cross-functional team environment.

All the time we have to keep in mind that the company staff, customers, and other stakeholders do not like failed projects and the project management in generally is not a simple task, and in particular – eCommerce field – requires special knowledge and skills.

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