

## The TacTec Game — The Tactics of Electronic Commerce

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### Abstract

Although buzzwords and hypes come and go in the field of Information and Communications Technology, the idea of Electronic Commerce remains a consistent presence. We here define Electronic Commerce as the transaction of business between two or more parties via Information and Communications Technology.

The increasing importance of Electronic Commerce forces organisations to assess the opportunities and risks of this medium for their future positions. There are many tools and techniques available to develop such a strategic vision.

Once an organisation has developed a shared vision of its strategic objectives, it will want to achieve them. The ensuing tactical phase can be complex. It may involve changes to the workforce, the technical infrastructure, and to business processes. Many issues will be uncertain. The process of change can take years while, at any given moment, the business has to be stable. Standard project management tools will therefore not be adequate.

The TacTec Management Game is a tool for developing effective decision-making at the tactical level: i.e. for the conversion of an Electronic Commerce business strategy into organisational change. It helps managers and professionals to identify the main aspects of the change process, to conceive a trajectory for each aspect, to plan the whole process in a series of steps and stages, and to define smaller projects that will implement the subsequent stage.

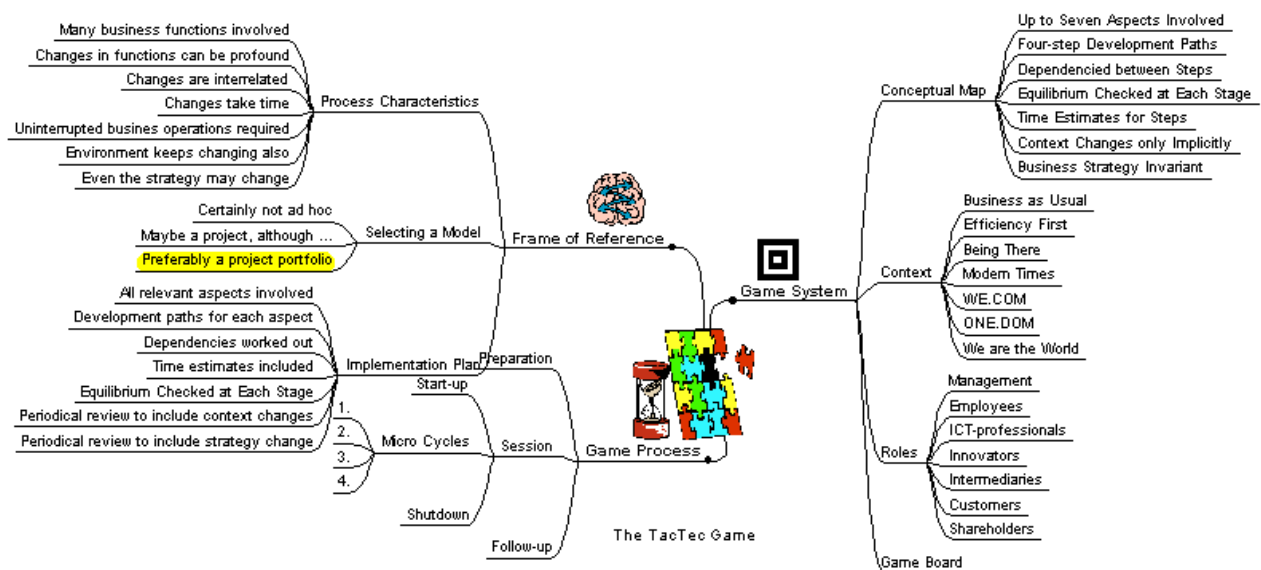


Figure 1.

## Introduction

This chapter introduces the problem areas in Electronic Commerce. It lists the requirements that a game for the tactics of Electronic Commerce will have to meet.

## Electronic Commerce

Although buzzwords and hypes come and go in the field of Information and Communications Technology (ICT), the idea of Electronic Commerce (EC) remains a consistent presence.

For the last few years, many ICT companies, educational institutions and government agencies have been deeply involved in this field. But definitions of the concept may vary to a confusing degree. They can range from the execution of a complete sales process via the Internet to any business activity that is supported by ICT. In this context we will define EC as the transaction of business between two or more parties via Information and Communications Technology (ICT).

## Tactics

The tactics of translating a given business strategy into daily operations is always crucial for success or failure, but especially so in the EC field. Too many organisations have already discovered that simply formulating a strategic vision and building a web site is just not enough to lead them into the promised land of the new economy. One major challenge, for example, lies in the integration of front office activities with back office operations and the necessary restructuring of the latter. Most current publications, however, deal either with EC strategy or with the ICT details required to realise it. We try to fill the gap between the two.

The implementation of an EC strategy is a highly complex matter. Not only are many business functions involved, but also most of them will have to face profound changes. And while such changes cannot be implemented overnight, nor by a single project, the company still has to go on doing business during the transformation process. Furthermore, anything that can possibly change will probably change before the strategic objectives are met, even the strategy itself! To guide an organisation through this complex process of change requires careful orchestration. The score for the concert is provided by the implementation plan that covers all the aspects mentioned above.

## Tools

The task to hand is complex. The people involved may be very different in background. The knowledge needed may be scarce and fragmented. A framework is therefore necessary to allow those involved to explore their situation and to benefit from second (and third, and fourth) opinions. A management exercise could provide such a framework. However, the participants would then be bound to their real-life roles. Introducing role-play, and thus converting the exercise into a game, offers a better environment for mobilising hidden knowledge and experimenting with new solutions. It not only offers the participants different perspectives, but also improves their mutual understanding.

## Game Requirements

**Subject** — The subject of the TacTec game is the tactics of Electronic Commerce. The translation of EC strategy into a tactical implementation programme is crucial to the success of any EC strategy. This implementation process can take years and may affect many business functions. And while the ICT environment constantly changes, daily business operations have to remain stable.

**Purpose** — The purpose of the TacTec game is to generate creative input from a client organisation, leading to the development of a structured implementation plan for any given EC strategy.

**Intended Use** — The TacTec game is designed for use during the development of an implementation plan for an EC strategy, both for consulting the client organisation and for preparing the final plan document.

**Participants** — The TacTec game requires adult participants with a professional background who are able to communicate and to cooperate. Homogeneity is not required. Different perspectives are welcome. The participants should have at least a basic knowledge of ICT and some experience of PC use, including surfing the web. Computers are not needed during the game.

**Variety** — The TacTec game can be scaled to accommodate groups ranging from 7–28 participants. The game has up to 7 roles. Each role may be played by a single participant or by a small team (of up to 4 players). A game session with a small group should take about 3 hours, with a larger group about 4 hours.

**Resources:** The resources required to play the TacTec game are minimal. A conference room large enough to accommodate twice the number of participants is sufficient. Furniture should be movable. The game kit consists of standard office items.

## **Frame of Reference**

This chapter makes explicit the frame of reference used to develop the TacTec game. It describes the main features of the process required to implement an Electronic Commerce strategy. Next it evaluates possible models used to manage such a process. The project portfolio model is chosen as the most suitable. An implementation plan for an Electronic Commerce strategy is, in fact, a plan for a project portfolio.

## **Characteristics of the Implementation Process**

At least seven features make the implementation of an Electronic Commerce strategy a complex process:

1. Many business functions are involved

Implementation is not only the responsibility of the ICT-department. It also has consequences for Marketing & Sales, for Public Relations and for Finance. Major organisational change may impact upon all employees. Changes in supply chain and distribution channel also are possible.

2. Changes in the business functions can be profound.

New (electronic) channels to customers need to be integrated with existing call centres. Back office processes also have to be integrated. ICT infrastructure might need an integral upgrade.

3. Change processes are interrelated.

Many dependencies exist between the different change processes: e.g. a new service to customers cannot be delivered before the necessary technical infrastructure has been made operational.

4. Each change process takes time.

Communication with all the parties involved takes time. Suppliers need time to deliver. Executives need time to master new concepts and to practice new tools. All this adds up.

5. Uninterrupted business operations have to be guaranteed.

At any given moment the company must go on doing business. Therefore, after each partial change, the organisation has to be in a stable state. It should always be able to provide its daily services.

6. The environment changes during the process.

The ICT market changes from day to day. Decisions made in the early stages of the implementation process, might well become obsolete before implementation is complete. Changing conditions may cause the whole process to be suspended half-way through, maybe temporarily, maybe permanently.

7. Even the formulated strategy may require correction before it has been fully implemented.

The EC field is changing rapidly. An organisation may need to adjust its strategy even before it has been implemented in its entirety.

### Selecting a Model for Change

To guide an organisation through a complex change process like the implementation of an EC strategy will require careful orchestration. There are no fixed procedures or recipes for such a profound organisational change. Nor would it be wise to implement such changes by ad hoc interventions alone. Approaching the task as a large project appears to offer a valuable model for change.

A project usually is defined as a temporary organisation set up to execute a well-defined task within a certain time frame and with clearly defined resources (of both people and money). The project model could be appropriate for certain parts of the implementation process. However, for the whole implementation process there will be a mismatch between the well-defined borders of a project and the fuzziness and elasticity involved in the real life implementation of an EC strategy.

To combine both the strength of the project approach for the implementation of well-defined short-term operational changes with the need to deal with mid-term uncertainties, we are choosing to approach the implementation of an EC strategy as a project portfolio.

### The Project Portfolio Model

A project portfolio is a set of loosely connected projects that, taken as a whole, accomplish a complex change operation. This operation does not have to be completely defined at the outset. It can be suspended at any time for an indefinite period and may not even reach its original destination. We assume that the organisation begins in state of stability. Individual projects will then change the organisation in stages, guiding it to the next stage of development where it is stable again. The portfolio of all the projects together will cover the whole implementation process.

In essence, the implementation plan describes the intended project portfolio. It is a map that shows the relations between projects (changes) and intermediate periods (stages).

To guide an organisation through this complex process of change requires careful orchestration. The score for the whole concert is provided by the implementation plan.

### Implementation Plan

Periods:	P1	P2	P3	P4	P5	P6	
Stages:	A	B	C	D	E	F	G
Business Function 1		1		2	3	4	
Business Function 2	1		2	3	4		
Business Function 3		1	2	3	4		
Business Function 4			1	2	3	4	
Business Function 5				1	2	3	
Business Function 6	1	2	3	4			
Business Function 7		1	2		3	4	

Figure 2.

The figure shows a simple form of implementation plan. Seven business functions are listed vertically. The columns A-G correspond with stages (points of equilibrium) of the implementation process. The intermediate columns P1, P2 etc. indicate the periods during which change operations (projects) take place. This simple structure will be used as the model for our game board.

## The Game System

This chapter describes the TacTec game as a system. It starts with the basic outline of that system: the conceptual map. Then it explains the various components of the game, such as context, initial-state, roles, game board and game facilitator.

### Conceptual Map

The concepts used in the frame of reference (such as ‘project portfolio’ and ‘implementation plan’) have to be translated into the basic outline for the game, the conceptual map. To restrict a game session to a half-day experience, some simplification is clearly necessary. We therefore limit the conceptual map to seven business functions. We further try to restrict the development paths to a sequence of three moves. We assume that the EC strategy does not change during the game.

### Context

The EC strategy belongs to the context of the game. For the participants, it is a given. The game facilitator, however, is free to choose a strategy. It could be derived from the client organisation’s actual strategic vision. If that is not available, the game kit provides a list of alternatives to choose from.

### Roles

Each business function will be converted into a role in the game. During the start-up phase (see later) the players may specify the roles to be played.

### Game Board

The game board is a two dimensional poster giving the outlines of an implementation plan. In fact it is an open frame, to be filled in with headings and content during the game. (See the diagram of a simple implementation plan in the previous chapter)

### Initial-State

The game facilitator may define the initial state of the simulated organisation. The game kit contains a default description.

### Game facilitator

Only the game facilitator sets the pace of the gaming process. The game does not “fire” any events by itself. The role of the game facilitator varies during the game. The next chapter will describe it.

## The Game Process

This chapter describes the TacTec game. It begins with the preparation of a game session by the game facilitator, continues with a description of the macro cycle (the major phases of the game session), goes into the details of the micro cycle (the repetitive steps of the game session) and ends with suggestions for follow-up activities.

### Preparation

Preparation by the game facilitator consists of the following:

1. Identifying the organisational context of the game session;
2. Making a description of the initial state of the organisation (or using/adapting the default description);

3. Selecting an EC strategy that will set the game context for the session;
4. Preparing the gaming room and game set-up.

## Macro Cycle

The macro cycle of the TacTec game consists of three phases. Estimated times for smaller or larger numbers of players are given in brackets.

1. Start-up (1:15; 1:50),
2. Micro-cycles (1:45; 1:45),
3. Shut-down (0:15, 0:30).

In total a session will take around 3:15 hours for a small group and around 4:05 hours for a larger group.

## Start-up

The purpose of the start-up phase is to welcome the participants, to introduce them to the game, to define the relevant roles within the game, and to assign players to roles. (NB! each role may be played by one or more players). All the roles will fall into one of three categories: management, internal and external (to the simulated organisation).

This phase of the play is a plenary session with the focus on the game facilitator. It consists largely of brainstorming preceded by individual preparation time.

## Micro Cycles

The core of the TacTec game consists of a sequence of four micro cycles. The purpose of the first micro cycle is to analyse both the current situation and the desirable future situation for each role. The second and third micro cycle lead to draft versions of an implementation plan for each role separately. The fourth micro cycle will result in an integrated implementation plan.

The four micro cycles have a different interaction pattern:

1. Analysis: No interaction with other roles (0:15),
2. 1<sup>st</sup> Draft: Interaction with roles belonging to the same category (internal or external) (0:30),
3. 2<sup>nd</sup> Draft: Interaction with roles belonging to the other category (internal or external) (0:30),
4. Integration: Interaction with all roles (0:30).

Together, the four micro-cycles will take 1:45 hours.

### 1<sup>st</sup> Micro Cycle: Analysis

The purpose of the first micro cycle is that each role produces a short analysis of their current situation and the situation once the EC strategy has been fully implemented. During this micro cycle the different roles have no interaction with each other. In small groups this implies that players not sharing a role will be working alone. This step ends with a short plenary round.

### 2<sup>nd</sup> Micro Cycle: First Draft

The aim of the second micro cycle is for each role to produce a first draft of an individual implementation plan. Such a plan defines a limited number of subsequent activities (preferably three) which will take 'him' from the current situation to the desired situation. During this micro cycle the roles belonging to the same category (Internal or External) will co-operate. For each category a round table conference will be held. As TacTec distinguishes two categories, two round table conferences will take place simultaneously. Management sits with the external category.

In sessions with a large number of participants each role has only one representative at the round table conference. The other participants act as observers and sit in the background. They may stand up, however, and give their comments to their representatives. The round-table conference is a consulting forum where the various roles assist each other in forming their individual plans.

### 3<sup>rd</sup> Micro Cycle: Second Draft

The aim of the third micro cycle is for each role to produce a second draft of the implementation plan. This will essentially be a critical examination of the first draft from outsiders. This micro cycle limits communication: each role may meet only two other roles, which must belong to the other category (internal or external). The cycle consists of two separate dialogues: first with one partner, then with the other. During each dialogue one role examines the draft plan of the other and vice versa. Management is walking around and may jump into any bilateral discussion.

In the case of 7 roles, there will be 3 meetings going on simultaneously. Halfway through the partners will switch and another 3 meetings will take place. If, with a large group, the gaming room does not permit this number of simultaneous meetings, role representatives may conduct the dialogue.

### 4<sup>th</sup> Micro Cycle: Integrated Plan

The purpose of the fourth micro cycle is to integrate the plans of the different roles. Communication is now possible between all roles. Again, each role presents their case through a representative, but all participants may add their comments.

## Shutdown

The purpose of the shut-down phase is to debrief the players, invite their assessment of the outcome of the game, check their commitment, collect their comments on the session and the game, thank them for their contribution, explain the follow-up and say goodbye. The shutdown phase is a plenary session structured by the game facilitator.

## Follow-up

The follow-up consists primarily of a feedback meeting between the client and the game facilitator to explain the conclusions drawn, discuss the recommendations made and agree upon possible further activities.

## Conclusion

The TacTec game kit provides the game facilitator with a list of possible EC strategies, an initial-state description and suggestions for business functions which may be involved and their corresponding roles during the game. Nevertheless, TacTec is an open game. The game facilitator may him/herself specify the EC strategy and the simulated organisation's initial state. The players have the opportunity to define the relevant business functions, e.g. the relevant roles in the game. It is even possible to use the game as a frame game for preparing the implementation of complex organisational change that has nothing to do with Electronic Commerce.

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