Partners Relationship Management of e-Logistics Networks

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Abstract

The establishment of an integrated Partner Relationship Management (PRM) system can potentially address several aspects of channel collaboration in a digital environment and offers a wide range of benefits to the members of the logistics networks. In this paper, a logistics partnerships typology is suggested related to the channel management in a virtual environment. Furthermore, the basic components and an architectural platform of an integrated E-Logistics PRM solution are designed. The proposed integrated e-Logistics PRM solution offers a systematic process for ensuring that specific partnerships criteria are developed and managed in the most beneficial way.

Keywords: Partner relationship management, e-business models, e-supply chain management, e-marketing, collaboration.

Introduction

In an e-business environment characterised by globalisation, increased customer responsiveness, channel integration, and advances in information and communication technologies, partner relationships have become increasingly important in ensuring business success and competitive advantage. The essence of partnering suggests that competencies are created when collaborative activity actually takes place leveraging the unique skills and expertise of each partner. Companies need to maximise the return on their partner investments by simplifying communication, streamlining time consuming administrative processes and eliminating extraneous expenses.

A partnership is a tailored business relationship based on mutual trust, openness, shared risk and shared rewards that yield a competitive advantage, resulting in business performance greater than it would be achieved by the firms individually (Lambert et al., 1996; Cooper, 1993; Oliver, 1990; Hogarth-Scott, 1999). The degree to which partners share infrastructure, facilities and technology, human resources, information, assets and risks, depends on their needs and the rules established jointly by partnership members. Thus, they can cooperate and compete at the same time in order to be more effective in the marketplace, utilising a relationship perspective, based on new rules of marketing / channel strategy and integration for the digital era. Each member of a partnership must be able to share gains and

losses equitably and the outcome of the collaboration must be quantifiably beneficial to everyone. The objective is to maximise benefits while minimising costs.

Market diversity, transparent prices, shorter products' life cycle and competitors' intensity enhance the need for partnership alliances in logistics networks. This multi-channel landscapes demand greater channel agility from network's partners, in order to increase partners' loyalty.

E-Logistics Partners Relationship Management (e-LPRM) enables the collaborative management and monitoring of the shared logistics services of disparate channel-members in a networking environment. It gives companies, both flexibility and control to connect with their channel partners, and provides a mechanism to analyse and understand the impact of collaborative logistics processes on its own operations.

PRM is not just a software, it is a strategy of empowering partners by giving them "equal access" to data and tools that internal employees have (product information, training, sales tools, transaction data and performance analysis reports) (Hildreth, 2002; Galbreath, 2002; Shackleton, 2002). The degree to which partners share information, resources, assets and risks depends on their needs and the rules established jointly by partnership members. Each member of a partnership must be able to share gains and losses equitably and the outcome of the collaboration must be quantifiably beneficial to everyone. The objective is to maximise benefits while minimising costs.

New trends and challenges in the e-business environment have prompted channel partners to re-evaluate their relationships. Today, more than ever, companies rely on an elaborate web of channel partners, acting as intermediaries between companies and their customers. These indirect sales channels constitute 50-70% of today's e-commerce activities (Thomson, 2000a). Customers know what they want but are inherently and increasingly disloyal. Furthermore, market diversity, transparent prices, shorter products' life cycle and competitors' intensity; enhance the need for PRM implementation. The multi-channel landscape demands greater channel agility from quality partners in order to increase customers / partners loyalty.

There are technical and organisational challenges, which have prompted channel partners to re-evaluate their relationships. The proliferation of new Information and Communication technology has made real time, online communications throughout the channel network a reality (Vlachopoulou et al., 2002). These technologies including computers, Information Systems, Internet applications, extranets, virtual private networks, value added networks, widespread standards open, client-server systems, integrated applications software, (such as Enterprise Resource Planning - ERP) are e-channel relationships "enablers". Globalisation of

markets, e-marketplaces, outsourcing, e-business models, supply chain complexity and customer focus, are the most important organisational / business challenges motivating channel partners to view the electronic management of their relationships as a strategic component of their efforts to grow revenue while controlling costs.

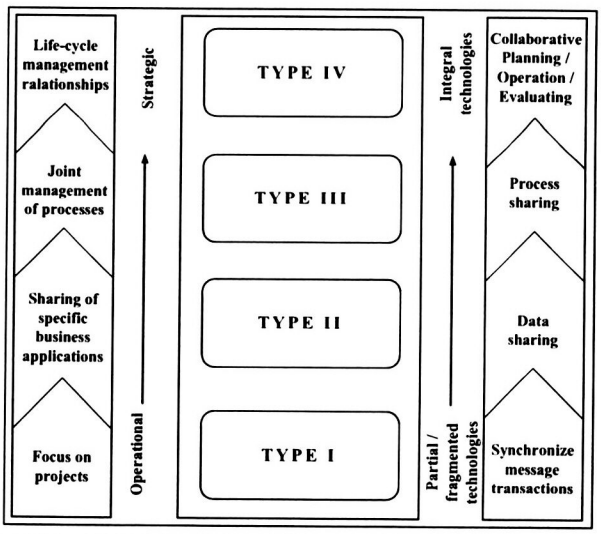
The main scope of this paper is to present a typology of e-channel partnerships and to design an integrated e-LPRM solution.

Logistics Partners Relationships Taxonomy

While logistics partner relationships have many similarities across companies and even industries, the situation of each company is unique. Relationships between logistics networks partners can range from a standardisation of exchanges "arm's length relationships", to virtual dynamic collaborative networks (Lambert et al., 1996; Harvey and Speir, 2000; Maretta, 1988; Wetzels et al. 1998; Das, Sen and Sengupta, 2003). Each relationship has its own set of collaboration factors driving its development, as well as, its own unique integration platform.

The duration, breadth, strength and closeness of the relationship will vary from case to case and over time, and it is based on the following partnerships criteria: Objectives and scope of the relationship, joint commitment and trust, information exchange, technology infrastructure and capabilities, involved business divisions, technology and process integration (Hoek, 2001). Based on the above criteria four logistics partnership types are suggested, each with different objectives and integration degree (Figure 1).

Figure 1: E-Channel Partnerships Typology



Organisations will adopt different levels of technologies as they join in communication or collaboration efforts. Depending on factors such as volume and scope of message transactions, data / process sharing, and information and process transparency, organisations fall within one of the following steps of technology integration, based on their infrastructure (Vlachopoulou et al., 2002), (Vlachopoulou and Manthou, 2003).

- Step 1. Synchronise message transactions: Ability to synchronise individual business exchanges through messaging transactions such as Electronic Data Interchange (EDI) and eXtensible Markup Language (XML).
- Step 2. Data sharing: Ability to share historical data for reporting and process validation.
- Step 3. Process sharing: Ability to create and share a single business process to be used by all partners across multiple channels.
- Step 4. Collaborative planning and evaluating: Ability to plan and evaluate key performance indicators.

The objectives of a logistics partners' relationship should also be clearly defined, so that everyone involved in a partnership model knows which are the expected benefits and responsibilities of the joint management. By participating, logistics partners can gain significant benefits, which can be broadly categorised as strategic and operational (Raisch, 2001; Ariba, 2000; Baumgartner et al., 2001; Gerstner, 2000). Strategic benefits include entrance to new markets and gain of new customers, formulation of new partnerships or strengthening of existing ones, faster response to market changes, better understanding of buying patterns and increased collaboration and information sharing across the supply chain. Operational benefits refer to improved market transparency (according to price and availability), economies of scale, wider range of available products and services, reduced transaction costs (e.g. order-processing costs), transaction automation and better inventory management. Logistics networks' members establish their rules of engagement with their partners, choosing one of the following objectives: Focus on projects, share of specific business applications, joint management of processes and life-cycle management relationships, ranging from operational to strategic ones.

Four types of e-channel partnerships are distinguished, each with different objectives and technology integration.

Type I. Relationships between logistics partners focus on short-term specific projects or tasks. There is no sense of long-term joint commitment or joint operations between the involved parties, just standardisation of products / services, terms and conditions. The relationship ends with the fulfilment of the concrete operation. The interest in integration is to synchronise message transactions by establishing information and communication tech-

nology standards, session and connection agreements and also by solving major security issues. This partnership type demands some level of information sharing about purchase orders and product specifications. Partners can share various types of information including offerings or requests, either before or after a purchase is made.

Type II. The focus is on the sharing of activities with short-term horizon, commitment to specific transactions, and synchronisation of specific applications across the channel. This partnership type typically involves even more information sharing about capacity, production schedules, marketing/sales plans, inventory and cost. Value chain constellation is applied in an operational manner only, as opposed to a dynamic virtual network approach, that of strategic and integral involvement.

Type III. Logistics partners interact with each other determining prices and availability of goods and services, as well as, delivery terms. Successful negotiations are usually finalised with a contract. The main characteristics are joint management of processes and, commitment to a longer-term relationship. The focus is in application integration, which consists of data, and interface integration. In this model it may be useful and appropriate to share planning and forecasting data.

Type IV. It focuses on joint performance, joint development of strategic objectives, commitment to share resources, and corporate culture consistency. It also maintains dynamic relationships, full sharing and visibility of information based on analytical and knowledge management capabilities. Finally, this model emphasises Collaborative Planning Forecasting and Replenishment (CPFR) methodologies. Collaborative virtual alliances enable logistics networks partners to work together on new products design, customer demands forecasts, based on real time visibility across the entire channel, flexibility of supply and sourcing options, and customer responsiveness (build on demand).

Relationships may be dynamic and likely change over the life cycle of the relation. The boundaries in the above-suggested logistics partnership types in practice are blurred due to the requirements' diversities between the partners (Vlachopoulou and Manthou, 2003).

E-Logistics Networks Partners Relationship Management (E-LPRM) Architecture

The core of an e-LPRM integrated solution is a partner profile database. This database captures a wide range of information from external sources, ranging from various partners' touch points such as Internet / Extranet communications via e-mail or ftp, e-enabled trade systems, etc (Nijssen et al., 1999). Information is usually held in multiple databases, from business functions including marketing, sales, service, accounting and distribution such as sales force automation mechanisms, call centres, callback systems,

e-catalogues, request for proposals, company information and news. There is a single access point in order to avoid problems related to data consolidation, aggregation and integration (Vlachopoulou et al., 2002). Additionally, the partner profile database provides the platform for a number of key activities - core modules, including sales and marketing programme management, service management, lead management and content management.

The *sales management module* supports easily accessible and real-time information (e.g. product / price details, contacts), sales training, opportunity management, forecasting, sales cycle analysis, sales metrics, activity reporting, and team selling management across multiple organisations.

The marketing programme management module provides marketing and analysis capabilities and mechanisms, to create and publish marketing programmes and to support the development and approval routing of partner-specific marketing needs. Furthermore, it ensures the provision of direct tracking of the effectiveness of marketing campaigns, actual disposition and quality of resultant leads, and the ability to import leads from events, manage qualification and return of investment (ROI).

The *service management module* ensures the delivering of service requests to the right partners automatically, based on the partners skills and profile. It also supports on-line self-service (e.g. search in frequently asked questions (FAQs) database) and ensures easily accessible and real-time information (e.g. important transaction data, such as accounts, invoices, leads orders, rebates, and customer surveys). It also carries out the management of warranty information, including registration, verification, tracking, and warranty, as well as, the management of the solution manages return requests.

The *lead management module* provides various capabilities for lead consolidation and cleansing, call centre integration, lead assignment and enhancement. It ensures easily accessed lead information and targeted lead routing, based on partner profiles including geography, vertical market expertise, complementary services, product certifications, authorisations, test scores, close rates, etc. It also provides reporting tools, in order to provide lead summary information that can be configured for different audiences and exported to desktops.

Finally, the *content management module* provides the following core capabilities: catalogue/document management and search capabilities, as well as personalised, tailored, optimised and integrated content.

The above modules are integrated with existing infrastructure, such as legacy systems, intra-enterprise systems (ERP, Customer Relationship

Management, etc.), inter-enterprise systems (Supply Chain Management, Supplier Relationship Management, etc.) and other front-end and back office applications.

The e-LPRM solution manages all the stages of logistics partners' life cycle, from recruitment, communication, profiling, training, promotion, performance measurement, contract review, renewal, and termination of the partnership.

The role of the logistics manager of a partnership can be undertaken by a specific member (Folinas et al., 2001; Ouzounis and Tschammer, 1999). Three main management concepts for the role of the master can be distinguished: a) the core firm concept, where the biggest partner in the network acts as the leading company and is responsible for the operation of partnership activities; b) the steering committee concept, where the partnership features multiple leadership, and it is managed by a steering committee consisting of the members' managing directors; c) the net-broker concept, where a neutral individual prepares a platform of competitive and complementary web members, and creates a co-operative environment based on mutual trust (Franke and Hickman, 1999).

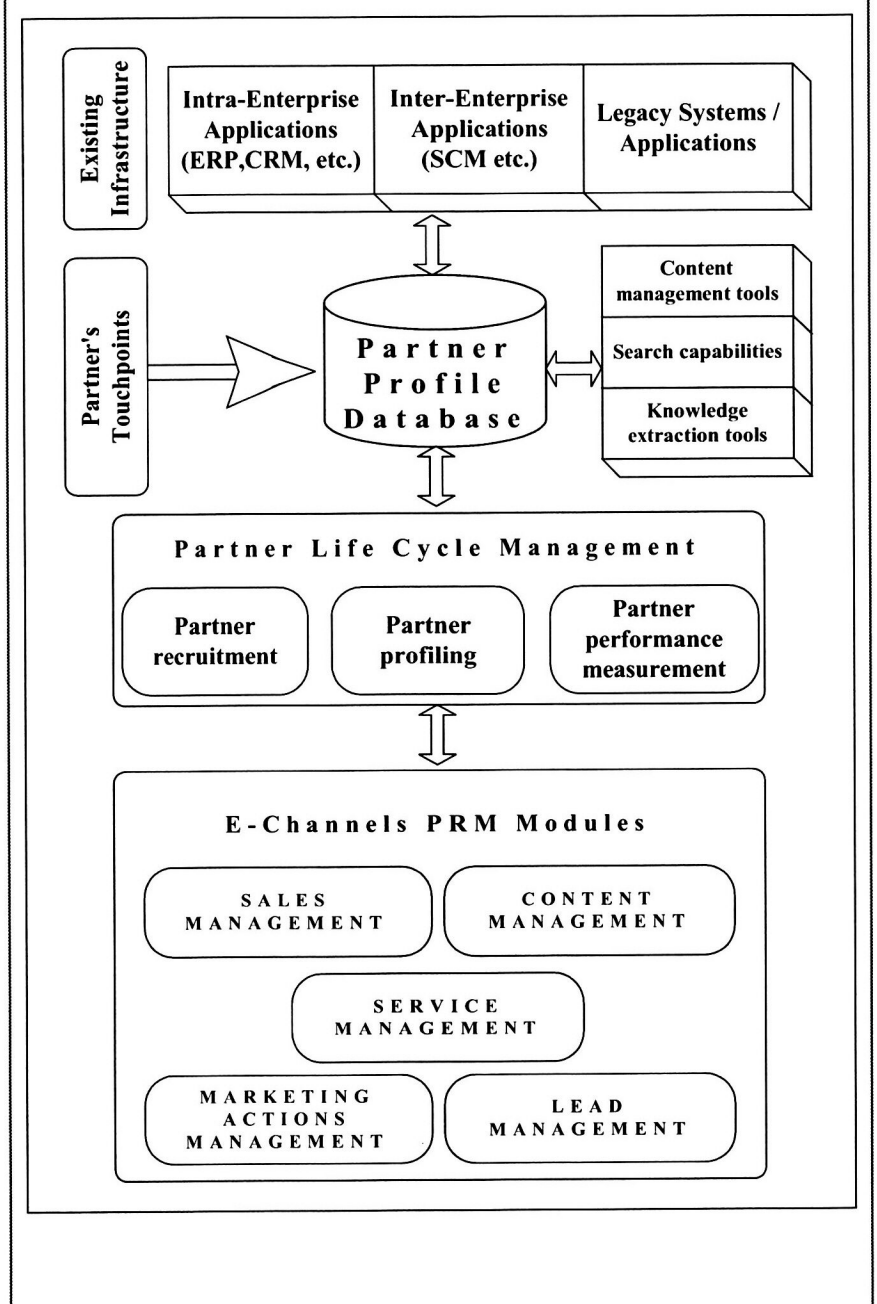
Furthermore, in order to support partner recruitment process, the proposed e-LPRM solution provides capabilities and mechanisms, such as automated recruitment tools, information gathering mechanisms during the approval process, and contract management tools. For managing logistics partners' profiling data there are tools to track partners' core profiles and to provide customised views of partners' data. Additionally, this module imports and exports data to existing databases, as well as, it executes business rules against profile information. During the life cycle of the partnership, the performance measurement is achieved by providing partner evaluation against established objectives and partner performance tracking.

All the above are depicted graphically in the following diagram that presents the proposed e-LPRM Architectural Platform (Figure 2).

Information management capabilities become a more important component of enterprise competitiveness. Enterprises need to distribute information internally to employees, externally to partners, suppliers and customers, and generally to the public. Especially, every channel partner needs current and relevant information to perform effectively. In order to establish an efficient policy for the management of information, an enterprise needs to develop a partner profile database, to analyse information requirements, to set permissions and access rules, and finally, to provide tools and capabilities in order to consolidate, clean up, and update current partner information. Such supporting tools are: content management tools, search capabilities and knowledge extraction tools (Thompson, 2002b). This infor-

mation can then be personalised and targeted. The goal here is to enable users find current, relevant and reliable content.

Figure 2: E-CPRM Architectural Platform



Conclusion

Information and Communication Technology and the Internet have become the key enablers for channel members-organisations to collaborate for mutual benefit. E-channel partners are increasingly viewing the improvement of their relationships as a strategic component of their efforts to grow revenues while controlling costs. There are many reasons for using partners, such as to expand market coverage, to offer specialised products and services, to broaden the range of offerings and to provide a more complete solution. Furthermore, it gives vendors and partners' instant and reliable information, provides customers with industry specific expertise, increases capacity to integrate multiple products / services, reduces time to market, and finally meets customer purchasing preferences with asset / cost efficiencies.

Partnering effectively though, is a complex undertaking, with problems related to the cost to recruit partners, to coordinate partners' sales team efforts and complex forecasting processes, to deliver sales tools to them, and to reduce control over the sales process. Additionally, there are problems in terms of gaining partners' mind share, as well as, the risk of partners selling competitive products.

Partner Relationship Management standardises best practices throughout the extended enterprise, using technology appropriately to reinforce relationships between channel partners.

The successful operation of today's networked supply chains mandates that every member must be able to share information with trading partners and customers in real-time, preferably without manual intervention. A collaborative platform among partners supports the partner relationship management and the conversion of the information available to knowledge. Partners' data analysis processing, allows members to derive information and partners' intelligence from data warehouse systems by providing tools for querying and analysing data, leading to multidimensional view of the specific partners. The outputs of partners' data analysis are useful to evaluate partners' readiness to collaborate and to compare and analyse real-time business performance and customer satisfaction.

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