Chapter 4.12 Environment-Enterprise Integration: Networked Entrepreneurial Opportunities

R.C. Michelini

DIMEC, University of Genova, Italy

R.P. Razzoli

DIMEC, University of Genova, Italy

ABSTRACT

Part of manufacturers' responsibility when bringing out new products is to consider their environmental footprint. The legal supply chain combines hardware/software delivery, granting on-duty conformance to use preservation, and end-of-life take-back, with compulsory recovery targets. These entrepreneurial competencies appear externally, in respect to old manufacturing practices, which were internal. Networking options provide fundamental technological aids. This chapter analyses some technologically-driven solutions which stand out for the exploitation of net concerns at these three integration levels: business project co-operation, through spot-wise

DOI: 10.4018/978-1-60960-472-1.ch412

agreements; the factually united organisation or virtual corporation; joint and several liability, or extended corporation. The checks are centered on the bottom up series of appraisals, to evidence the return on investment from below so that the partnership permanently spurs motivation and fosters competition through properly established facilities/functions integration into unified competitive entrepreneurial organisations.

INTRODUCTION

Ecology requires dramatic changes in industrial economic trends. The affluent society paradigm, based on manufacturing efficiency, transforming raw materials into mass products, quickly increases pollution and waste and is facing imminent limita-

Environment-Enterprise Integration

tions to safeguard mankind's future. It is difficult to accept the today's population approach that it is their absolute privilege to exploit the earth's resources. They seem to feel their entitlement is based on being the first to obtain possession. The impending eco-regulation is an entangled issue made rather critical in times of economic recession, as mandatory restraints are seen as severe changes and forbidding full access to immediately spendable riches.

In this chapter we outline the knowledge entrepreneurship way out of this issue (Michelini, 2008), based on value added intangibles and assured by two main opportunities:

- the resort to product-service deliveries, imposed as the lifestyle manufacturers' responsibility;
- and the net-concerns efficiency, obtained by clustering facility/function fit-for-purpose capacities.

The issue is a technology-driven construct, offered by information and communication aids, aimed at advanced entrepreneurial settings. The emerging net-concerns have to incorporate the Information and Communication Technology as instrumental business support of lifestyle supply chains. The technicalities cover a series of prospects showing the readily available mix of opportunities:

- design, manufacture, trade, service, and bookkeeping fusion
- net-enhanced product-service deployment organisation
- forward/backward logistics information flow integration
- resource productivity management and imbalance recording
- customers relationship and certification establishment
- supervisors' accreditation and eco-vaulting administration

- entrepreneurial project and partnership clustering appraisal
- facility/function market and broker negotiation/incorporation
- interoperability ruling and in-progress achievement assessment
- networking value added and return on the collaborative course
- design, manufacture, trade, service, and bookkeeping fusion
- net-enhanced product-service deployment organisation
- forward/backward logistics information flow integration
- resource productivity management and imbalance recording
- customers relationship and certification establishment
- supervisors' accreditation and eco-vaulting administration
- entrepreneurial project and partnership clustering appraisal
- facility/function market and broker negotiation/incorporation
- interoperability ruling and in-progress achievement assessment
- networking value added and return on the collaborative course.

The *product-service* delivery is definitely a duty to be accomplished during the design phase. The unified liability falls on the main manufacturer even if it integrates components, technologies, and expertise of different origins. The lifestyle commitment requires extended ranges of skills, beyond the core competencies of most manufacturers. For effectiveness, resorting to fitting facilities and functions becomes imperative, making it important to aggregate apt partners each time the business project is defined.

The advanced enterprise challenge consequently develops based on three successful occurrences:

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/environment-enterprise-integration/51731

Related Content

Enhancing the Efficiency of ICT by Spatial Data Interoperability

Otakar Cerba, Karel Charvat, Jan Jezekand Stepan Kafka (2011). *Handbook of Research on Green ICT: Technology, Business and Social Perspectives (pp. 301-316).*

www.irma-international.org/chapter/enhancing-efficiency-ict-spatial-data/48436

How to Manage Incompleteness of Nutritional Food Sources?: A Solution Using FoodOn as Pivot Ontology

Patrice Buche, Julien Cufi, Stéphane Dervaux, Juliette Dibie, Liliana Ibanescu, Alrick Oudotand Magalie Weber (2021). *International Journal of Agricultural and Environmental Information Systems (pp. 1-26).* www.irma-international.org/article/how-to-manage-incompleteness-of-nutritional-food-sources/278408

Statistical and Data Mining Techniques for Understanding Water Quality Profiles in a Mining-Affected River Basin

Jose Simmonds, Juan A. Gómezand Agapito Ledezma (2018). *International Journal of Agricultural and Environmental Information Systems (pp. 1-19).*

www.irma-international.org/article/statistical-and-data-mining-techniques-for-understanding-water-quality-profiles-in-a-mining-affected-river-basin/203019

Internal Migration Propensities and Patterns of London's Ethnic Groups

John Stillwell (2010). Technologies for Migration and Commuting Analysis: Spatial Interaction Data Applications (pp. 175-195).

www.irma-international.org/chapter/internal-migration-propensities-patterns-london/42726

Exploring Information Technology and Total Quality Management Implementation by Food and Drink Manufacturing Enterprises

Sofia Zioupou, Basil Manos, Zacharoula Andreopoulouand Irini Tzimitra-Kalogianni (2019). *International Journal of Agricultural and Environmental Information Systems (pp. 1-13).*

www.irma-international.org/article/exploring-information-technology-and-total-quality-management-implementation-by-food-and-drink-manufacturing-enterprises/228925