# Chapter 74 International Fashion Retailing from an Enterprise Architecture Perspective

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# **ABSTRACT**

International retailing of non-food fashion products, as chain stores impose a particular challenge within Enterprise Architecture (EA) as the same general infrastructure networks, brands, data, business intelligence and applications should work in multiple, semi-compliant geographic regions. Generalised Information System architectures are desirable. A case is presented of a fashion retailing organisation growing from 100 to 2,000 stores with both fluctuant and long-term decision making but also a strong international orientation. The case creates a basis for shaping the wider Enterprise Architecture for retailing. EA has significant potentials for innovation, improvement, enrichment and increased interaction between business and technology. Technology vendors are prepared for EA observations but business seems hesitant: The IT inventory of chain retailing should be managed within EA, positioning the store in large international networks of chains encompassing marketing, supply chain, multi-channel concepts, payment systems and loyalty programs. Conclusively, guidelines are set for a deepening of EA within retail.

### INTRODUCTION

The retail industry is by headcount, value adding, square meters and a plethora of other parameters one of the largest industries in many economies. The retail industry is increasingly defining itself into chains (Brun and Castelli 2008), many with

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a strong international, growth orientation. Gartner (2009) predicts a global annual IT spending with retail on USD 153bn. Lewis (2005) talks about compelling ROI requirements on projects. Several vendor/product-centric proposals for Enterprise Architecture (EA) do exist (IBM, Cisco, SAP, NCR, Oracle), but many have an inclination to general or food retailing in single-company, single-country, single-organisation setups, also the

detailed EA narrative on 7-Eleven Japan found in Ross et al. (2008). In this chapter, IT and EA within retailing are highlighted within multi-company, non-food, multi-country chains. The application and utilisation of IT is analysed to assess and establish an Enterprise Architecture (EA) for a strengthened support of the development of the chains and the retailing as such and to position various business requirements relatively against each other (Zentes et al 2007).

International retailing, in this case non-food fashion products, as chain stores or branded stores is expanding and imposes a particular case within EA as the same general infrastructure (networks, brands, data) should work in multiple geographic regions with highly different compliance requirements. To create uniformity in global business processes, one overarching information system architecture is desirable, although complicated. Data is increasingly shifting from one-way, batchoriented, simple price-product data to two-way, real-time communication including rich multi-media content linking head-office with up-to-the-minute business data and reporting. Data drive complex supply chain solutions (Lowson 2001; Wong et al 2006; Choi 2007; Pritchard 2010) within the head-office link logistics services providers and manufacturers to the demands of the stores.

Fiscal requirements (NCR, LS Retail) are critical and include national, regional and local sales tax/VAT with different product-dependent rates and models; specialty printers; local certification processes; handling of multi-currency; volatile currencies; inventory reporting; customs/duty processing down to store level; and excises.

Workforce management (WFM) and optimization (Vedamani 2006, Joshi 2009) ranges from the simple to highly complex local rules for contracts, shifts, breaks, long term schedules, overtime, deviations and job roles; potentially including performance linked compensation.

Payment solutions (Humphrey 2010, SAP 2010) have become increasingly complex with multitudes of payment cards having different

properties, different clearing houses, different suppliers of Electronic Funds Transfer (EFT) terminals, increasing number on non-pecuniary payment (Vedamani 2006) and refund options like vouchers, lotteries, smart-phone tags. EFT terminals might be integrated or non-integrated (Tambo 2010b) into the point-of-sales systems each creating complexities and sources of errors; new security debit and credit cards create new requirements on EFT including scanning signatures and biometrical data (Savage 2002).

Loyalty programs (Zentes et al. 2007) introduce several complexities like customer loyalty cards, customer clubs, cross-marketing initiatives giving discounts, earning points and seeking to establish new types of customer relationships. Manufacturer and brand incentives and promotions must also be considered. (Kurata and Yue 2008)

Multi-channel retailing (DMS Retail 2010, Zentes et al. 2007) imposes new and different requirements on the store as transactions are remote and crossing several organisational barriers. Within multi-channel retailing the different entities are expected to loyally contribute and share the benefits.

Most stores in focus have various degrees of multimedia (Cisco 2008) in the form of in-store music, video, information kiosks, surveillance systems and co-sales of media-related products become commonplace. The visual appearance of the store might also be an online service itself. (Visual Retailing 2010)

The research question revolves around how to include an EA for international non-food retail chains with emphasis on placing the right architectural elements at the right levels of the operating organisation and including proposal for management plans of the architectural change processes.

Retail is the end-point of many supply chains (Abernathy et al. 2000). Retail has to comply with standards and regulations in any country of operations. POS and ERP are often detached creating a demand for overcoming "silo thinking" (Tambo 2010b). POS should model exactly

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