

7. CONCLUSION AND RECOMMENDATIONS

7.1 Propositions

This thesis tested three propositions in order to address the research problem. A summary of the propositions tested is presented in the table below.

Proposition	Finding	Comments
The typology of transnational FMCG supply chains originating in India and South Africa is not different than that identified in the literature.	Supported	The functional and structural attributes for all the cases were analysed and compared.
The issues identified within transnational FMCG supply chains originating in India and South Africa were, but not limited to: <ol style="list-style-type: none"> increased product cost. reduced supply chain service levels. reduced supply chain flexibility. increased product lead time. increased inventory. unstructured policies. un-aligned business strategies. 	Partially supported	The impact on operational performance (service level etc) was different amongst the cases. The financial and the governance performance were similar.
The supply chain managers were taking the following steps to address the issues with transnational FMCG supply chains originating in India and South Africa, but not limited to: <ol style="list-style-type: none"> adopting newer and advanced technologies. redesigning supply chain organisation hierarchy. investing in better measurement controls for the product quality. investing in additional inventory for longer lead time products. focusing on core functions of the organisation and subcontracting the non-core functions. 	Supported	The steps were focussed around addressing the issues highlighted in the previous proposition.

Table 7-1: General links between proposition, finding and comments

7.2 Summary of major findings

The roles and responsibilities of the supply chain functions among all four research cases were not similar. The various roles were not given the same names and the responsibilities of a particular role differed among the cases. The extent to which supply chain-related roles were involved with the various supply chain activities was also different among the cases. This was due to the differences in the maturity levels of the supply chains.

The fact that the typology of a particular product segment in both countries, as identified in the case studies, was similar to that of any other FMCG supply chain in terms of functional and structural attributes, as identified in the literature review, meant that one of the aims of this research had been fulfilled.

This thesis also identified an appropriate analytical model to analyse transnational FMCG supply chains. Three operational performance models were studied and compared. The SCOR model was used to compare the supply chains of the cases based on specific performance indicators. This allowed the study to benchmark and compare the various supply chains effectively. The use of financial indicators was also found to be helpful as it identified the impact of the transnational supply chain on the economic health of an organisation, which was one dimension that had never been studied previously in conjunction with the performance indicators. However, the full potential of the governance model was not utilised in this research from a benchmarking perspective as the cases presented different levels of supply chain maturity (e.g. Surya when compared to other cases). However, it is

recommended that this model could act as a common platform to compare or benchmark different but similarly matured supply chains.

The impact of macroeconomic factors on the supply chains was also studied, which is an aspect that has never been dealt with before in the literature on the FMCG industry. Both countries displayed similar political (democratic) and diverse demographic (multiple languages and tribes) setups. From the economic perspective, both countries had adopted similar trade regimes such as joining the WTO, spending a similar percentage of their GDPs on logistics infrastructure, entering into trade agreements (BIMSTEC/SACU), imposing VAT and encouraging trade liberalisation. Both countries were trying to reduce their environmental impact (carbon) footprint.

It was established in all four cases that the various FMCG supply chains had adopted simple manufacturing processes, although their distribution processes were complex (which was also identified in the literature review). The supply chain structures for the Indian cases were more geared towards the decentralisation of their DCs, while for the South African cases, the supply chain structures were mostly centralised. The use of so many different languages in India resulted in increasing supply chain complexity (different language labels, etc.), while this was not the case in South Africa. In South Africa, a common labelling system could work as most of the customer base could speak one common language, English. Some of the latest trends, such as “dealer owned brands” or “private labelling” were not evident among the cases.

Detailed process maps were developed for transnational FMCG supply chains based on SCOR and Porter's value-chain model. The issues identified within the transnational supply chains in the two countries, such as inadequate use of technology, measurement criteria and supply chain adaptability, were found to be different to some extent. However, some of the issues identified such as lower product quality, higher sales returns, lower supply chain responsiveness, higher inventories, unclear policies, and structural and cultural concerns were similar in the two countries. These issues were similar to those faced by any other FMCG supply chain, as identified in the literature.

The fundamental characteristic of FMCG supply chains, i.e. the bullwhip effect, was not found in transnational supply chains in all four cases. This was because orders were received directly from customers and shipments were direct deliveries as well, thus ignoring the order batching and demand projections.

The Indian cases encountered unique issues such as the non-existence of supply chain policies and the lack of a regulated transport infrastructure, while the South African cases faced unique issues related to supply chain skills and foreign exchange. Outsourcing, identified as one of the latest trends in transnational supply chains, was well adopted by the South African cases; however, in the Indian cases, logistics were controlled by the FMCG firms themselves with support from ad hoc transporters. The highly fragmented trucking industry, which handled most business-related transportation in India, made it difficult for firms to manage the plethora of carriers required to handle shipment volumes, while in South

Africa, well-established 3PL entities supplied transportation services to FMCG firms.

While customers demanded improvements in products at ever-lower prices, producers and distributors of FMCG products in both countries were facing increasing competition in nearly every product category. The traditional methods of supply chain design and management did not always apply in this new era of transnationalism, owing to complex tax regulations, non-standardised transportation, uncertainties across the value chain and the low rate of technology adoption. However, the supply chains of the South African cases were found to be mature enough to design new supply chain principles, despite the slower economic growth of the country compared to that of India. In terms of factors such as the embracing of the latest technology and the involvement and clearly defined roles of third-party entities in the supply chain, the FMCG supply chains in South Africa embraced these complexities and designed their supply chains to efficiently move products from sourcing through to fulfilment and were reaping the rewards of the market size and growth potential that this sector offered.

It was stated that these unique issues possibly resulted from the two countries' different political systems and government support structures or the different maturity levels of their supply chains. As the question of the competence of supply chain managers lay outside the scope of this research study, the reasons for this uniqueness could not be further explored.

The packaged food cases were facing issues such as short shelf life, strict food regulatory laws, manufacturing complexities and less outsourcing options; while the personal care cases were facing issues such as product proliferation and supplier unreliability. The cases from the packaged food segment were also faced with strict international regulations that they were not fully aware of. The use of advanced technologies such as RFID was identified as being essential for this segment.

The steps that supply chain managers were taking in order to confront the issues facing them were quite similar in both countries, such as focusing on policies, analysing advanced technology, outsourcing non-core functions such as distribution, and focusing on improving quality and service delivery. In the Indian cases, supply chain managers were also focusing on establishing contracts with suppliers/customers; while in the South African cases, supply chain managers were focusing on investing in infrastructure and branding into transnational markets.

In the packaged food cases, supply chain managers were focusing on improving the quality of their products; while for personal care cases, supply chain managers were focusing on improving the branding.

The supply chain managers were also focusing on reducing the number of SKUs in order to exercise better quality management control over the product portfolio. However, the steps they were taking lacked a full understanding of international regulations, end-to-end supply chain visibility, aligned supply chain and

operational strategies, functional integration, a framework for outsourcing, change management and strategies for collaboration.

Another interesting fact identified was that a few of the supply chain optimisation activities negatively impacted the performance of the supply chain. Such optimisation initiatives as LCCS were perceived to improve the efficiency and reduce the cost, however, resulted in increasing the supply chain risks.

Some of the additional findings such as financial accounting practices and forex control have never previously been identified in other research. Therefore, it is suggested that a special effort was required to manage these issues, as supply chain managers were never faced with these issues in the past.

This thesis also focussed on developing a framework of supply chain operating model that was proposed to address the issues identified, and was aligned with the steps taken by the supply chain managers. The framework was evolved from the common typology identified among the cases, and it developed a common supply chain strategy with interlined supply chain elements.

7.3 Recommendations to the industry

This thesis identified certain industry trends from the literature review and the gaps identified from the field research, and these formed the basis for the recommendations made to the industry. The recommendations were identified from a point of view – what the CEs of these cases should have considered changing or implementing to address the identified issues and to improve the efficiencies and effectiveness of their transnational supply chains.

It was evident from the findings of this thesis that the four cases used a similar supply chain typology and setup. However, it was also evident that none of them had deployed an operating model to govern and streamline supply chains. It was recommended that the proposed framework of the supply chain operating model be developed and tested in order to improve the efficiencies and effectiveness of their supply chains.

It was found during the literature review that the SCOR model was well suited to designing supply chain processes for FMCG firms, although not many firms were using it. It was recommended that an end-to-end process framework that provided the functionality of standardising and benchmarking processes be used by the FMCG industry.

Underlying organisation structures support the supply chain. Based on the earlier two recommendations (operating model and process structures), it was prudent for these cases to standardise their supply chain organisation structure. It was recommended that FMCG industry deploy an organisational structure that was

