Investigation into the Strategic Role and Effective Functioning of the Supply Chain Function in South African Organisations

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Précis

Over the last decade Integrated Supply Chain Management (ISCM) has been recognised as an essential driver for business success and increased competitive advantage within South African organisations. The goal of this presentation is to provide insight into the findings of the investigation into the current status and role of Integrated Supply Chain Management within 31 South African organisations operating within the retail and manufacturing sector. The presentation addressed key learning points such as the current state of Integrated Supply Chain Management within South African organisations, the best practices and strategies being applied and the gaps facing South African organisations.

Introduction

South African organisations are currently operating within one of the toughest operational environments to date and these circumstances have brought about the necessity for organisations to become flexible and accommodating of transformations within their industries and supply chains to increase their competitive gain. With the development and advancement of integrated supply chain techniques and frameworks there is untapped potential for supply chain management to provide a platform for integration within a South African organisation’s strategic operating plan.

The objective of this investigation was to provide insight into the current status and role of integrated supply chain management within South African organisations, as well as to identify the major gaps between the current status of integrated supply chain management and the prescribed best practices.

Research Methodology

The investigation was conducted by means of a qualitative study of 31 participating members of the supply chain community. The study consisted of each participant completing a standardised survey based on the SCMAT v.8.0 test, extracted from ‘A practical tool for supply chain improvement – experiences with the supply chain maturity assessment test (SCMAT)’, by Netland, T.H. and Alfnes, E. The SCMAT analysis provided a platform to objectively evaluate each participant in terms of a broad overview of the organisations supply chain, as well as the best practice techniques that are currently being implemented and the level of implementation thereof. This was followed up by electronic based interviews, the study of case studies and of the current literature available.

The collected data was analysed by means of combined analysis, where the statistically analysed survey results were combined with the information gathered by means of the
INVESTIGATION INTO THE STRATEGIC ROLE AND EFFECTIVE FUNCTIONING OF THE SUPPLY CHAIN FUNCTION IN SOUTH AFRICAN ORGANISATIONS

interviews and current literature to establish the findings regarding the current status and role of integrated supply chain management within South African organisations.

The Participants

The organisations that participated in the investigation were classified into groups for analysis purposes as detailed in Table 1 below. The allocation of groups was based on the role the organisations play in industry and the type of products they produce. The three roles are Manufacturing, Retail and Mining and the three types of products are consumables, industrial products/ feed stock and semi-durables/durables.

Table 1: Respondents Product Types And Role Player Placements

<table>
<thead>
<tr>
<th></th>
<th>Consumables</th>
<th>Industrial Products / Feedstock</th>
<th>Semi-durables / Durables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufacturing</strong></td>
<td>Distell LTD</td>
<td>Safrisol</td>
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<tr>
<td></td>
<td>Astral Foods Poultry Division</td>
<td>Afrox</td>
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<td></td>
<td>Amka Products (Pty) Ltd</td>
<td>Shell</td>
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<tr>
<td></td>
<td>Nestle</td>
<td>PG group</td>
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</tr>
<tr>
<td></td>
<td>Tiger Brands</td>
<td>Nampak Ltd</td>
<td></td>
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<tr>
<td></td>
<td>Clover</td>
<td>Sappi Paper &amp; Paper Packaging</td>
<td></td>
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<tr>
<td></td>
<td>McCain Foods SA</td>
<td>Sasol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kraft Foods</td>
<td>PPG Industries</td>
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</tr>
<tr>
<td></td>
<td>National Brands</td>
<td>AfriSam (South Africa) (Pty) Ltd.</td>
<td></td>
</tr>
<tr>
<td><strong>Retailer</strong></td>
<td>Bytes Document Solutions</td>
<td>Dawn Ltd</td>
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<td></td>
<td>Pick n Pay</td>
<td>Stuttafords</td>
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<td></td>
<td>Woolworths</td>
<td>Kia Motors</td>
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<td>JD Group</td>
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<tr>
<td></td>
<td></td>
<td>Nike South Africa</td>
<td></td>
</tr>
<tr>
<td><strong>Mining</strong></td>
<td>Anglo American Platinum</td>
<td>Exxaro Resources Ltd</td>
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</tbody>
</table>

Figure 1 below depicts the industry and product distribution in the sample. The largest industry and product sample space is that of manufacturing consumables and the smallest sample space is that of the mining sector.
I NVESTIGATION INTO THE STRATEGIC ROLE AND EFFECTIVE FUNCTIONING OF THE SUPPLY CHAIN FUNCTION IN SOUTH AFRICAN ORGANISATIONS

Results

Findings on the current status and role of ISCM within South African organisations:

1. Role players in the consumables value chain exhibit a significantly higher level of maturity than role players in other value chains

   Within the survey sample, 62% of the participating organisations that operate within the consumable products industry were found to have an overall average that indicates a mature supply chain compared to organisations that operate within the non-consumables industry, such as the semi-durable and durables and industrial products/feedstock, where only 44% were found to be mature. This reveals that the consumables industry is more likely to have a mature supply chain, than role players operating within the non-consumable industry.

2. South African organisations are aligning their supply chain strategies with the broader organisational strategy

   It was found that South African organisation’s chose to align their supply chain strategies with the organisation’s overall strategy, as this strategy ranks the highest, considering its low standard deviation of 0.79. 84% of the participants indicated that they mostly or always fully implement this best practice strategy, opposed to only one of the participants stating that they implement an aligned strategy to some extent. It was also found that organisations involved in the retail sector scored a high average of 4.5 out of 5, indicating an emphasis on successfully aligning their strategies.

3. Lack of implementation of information best practices within South African supply chains

   Information best practices scored the lowest overall within South African organisations, with an overall average maturity rating of 2.90 out of 5 and a standard deviation of 0.87. Six of the eight information techniques prescribed as best practice, were within the top ten lowest ranking best practices. This reveals that information best practices are not generally held in high regard within South African supply chains. As established in the research project, many
of the key frameworks available for ISCM rely heavily on the use of information best practices to monitor and successfully integrate a supply chain and thus by not successfully implementing these information techniques, South African supply chains could be impairing their capabilities.

4. South African organisations recognise the importance of being customer focused

The investigation revealed that South African supply chains, across all role player sectors, have chosen to design their supply chains to be customer focused. This was evident from the study in that the implementation of a customer focused strategy ranked third overall within the study, with an average mean of 4.03 out of 5 and a standard deviation of 1.00. The large standard deviation reveals that South African organisations are attempting to design and manage their supply chains to be customer focused, but there is a large variation in the implementation and success thereof. 70% of the supply chains mostly or always fully attempted to be customer focused, while 27% of the supply chains partially implemented this strategy. Customer focus is an essential driver for a successful supply chain and this is a positive indicator of supply chain best practices within South African organisations.

5. South African organisations have yet to realise the benefits of collaborating with supply chain partners

It was found that within South African organisations, the best practice strategy of aligned incentives ranked 41st overall and 46% of the participating organisations never or rarely collaborated with their supply chain partners, while 46% of South African supply chains are partially managing to successfully collaborate and fully utilise aligned incentives within their supply chains. Aligned incentives and aligned roles, are best practices strategies that concurrently work together within a successful supply chain management strategy and it was found that both strategies ranked in the lower quartiles of the study. This indicates that there is a gap between the knowledge of supply chain management and the successful implementation of supply chain collaboration strategies within South African organisations.

6. Planning, forecasting and replenishment strategies are the backbone of South African supply chains

The investigation revealed that South African organisations place great emphasis on the implementation and successful management of supply chain coordination control methods, in terms of planning, forecasting and replenishment, as Supply Chain Coordination ranked 2nd highest overall with a mean of 4.19 and a standard deviation of 0.95. The effective use of supply chain coordination control methods can be particularly noted within the manufacturing sector participants.

7. South African organisations are not placing emphasis on designing agility in their supply chains

The investigation revealed that South African organisations on average are not placing emphasis on designing agility within their supply chains, as agility ranked 29th overall, with a mean of 3.32 and a standard deviation of 0.98 within the total sample. This is supported by the observation of a large distribution across the implementation ratings in the Retail sector, where 50% of the participants barely or only partially implemented the best practice and 50% of the participants frequently or mostly implemented the best practice. Furthermore it was
found that 68% of the Manufacturing role players barely or partially implemented the best practice.

8. Minimal emphasis is placed on minimising inventory within South African supply chains

Overall minimised inventory scored very low throughout the investigation, by being ranked 43rd within the overall investigation, with a mean of 2.84 and a standard deviation of 0.86. It was found that the lack of implementation did not differ between role players, though the manufacturing and mining value chain members chose to keep buffer stock, while the retail value chain members placed very little emphasis on minimising inventory and maintaining buffer stock, which is indicated by the ranking of 46th overall.

Findings

Closing the information gap

The lack of implementation of information best practices within South African supply chains is one of the barriers hampering performances within South African organisations. This is due to the fact that information management and integration thereof is a crucial part of the three fundamental dimensions of supply chain integration and that many of the information techniques support and promote broader best practice strategies. This has resulted in a gap, as South African organisations are choosing to implement best practice strategies such as positioning their supply chains to be customer focused, as well as implementing collaboration strategies yet they do not have the information structures to support, manage and control these strategies.

This can be substantiated by the fact that participants in the manufacturing of consumer goods sector have identified information management maturity as one of the greatest gaps their organisation is currently facing and have implemented a three to five year plan to bridge this gap.

Aligning the understanding and implementation of supply chain collaboration

The successful collaboration between supply chain partners requires implementation of both aligned incentives and aligned roles within a successful supply chain management strategy, as these two best practices work concurrently together. The investigation revealed that South African organisations were implementing the best practices of aligned roles and aligned incentives at different implementation levels, which indicates that there is a gap in the understanding of supply chain management and the successful implementation of supply chain collaboration strategies within South African organisations.

Conclusions

The outcome of this investigation was to establish the current status and role of integrated supply chain management within South African organisations, focusing on the transformation initiatives being applied by South African organisations and the major gaps between the
INVESTIGATION INTO THE STRATEGIC ROLE AND EFFECTIVE FUNCTIONING OF THE SUPPLY CHAIN FUNCTION IN SOUTH AFRICAN ORGANISATIONS

current status of integrated supply chain management within South African organisations and the prescribed best practices.

The investigation established by means of a qualitative study that South African organisations are recognising the advantages of managing their supply chains as a competitive weapon and are positioning their supply chains as essential components within their strategic management. This can be seen by the high level of awareness and transformation initiatives being implemented by means of aligning their supply chain strategies with the broader organisational strategy, becoming more customer focused, realising the benefits of collaborating with their supply chain partners and implementing planning, forecasting and replenishment strategies.

A successful supply chain requires a holistic approach; and there is no single best practice that can optimise and manage an entire supply chain. It was found that the issues mentioned henceforth were hampering the successful operation of supply chains within South African organisations. The first being, the lack of implementation and successful deployment of information management techniques within South African organisations and secondly the gap in the understanding of supply chain management and the successful implementation of supply chain collaboration strategies within South African organisations.

References


About The Authors

Cobus Rossouw, CSCP, is the Chief Integration Officer of IMPERIAL Logistics, responsible for strategy coordination, marketing, business solution development and information technology alignment. Furthermore, in support of this, Cobus oversees the operating companies within the Integration Services Division - which includes primarily Volition, e-Logics and Imperial Online. Cobus obtained engineering and commerce qualifications from the University of Pretoria. With his focus on industrial and systems engineering and business logistics, his career was destined for Supply Chain Management. Cobus also studied towards a MBA at UNISA and qualified as Certified Supply Chain Professional through APICS, the Association for Operations Management in the USA. Cobus is registered as a Professional Engineer with the Engineering Council of South Africa (ECSA). Before co-founding Volition, Cobus was Logistics Director of Cadbury South Africa and consulted to various Food and Chemicals businesses from Louis Heyl and Associates. Imperial acquired a majority stake in Volition in 2008 and Cobus joined Imperial Logistics in 2009. Cobus is a Director and Chairman of the EXCO of SAPICS where he strives to better enable the association to serve the supply chain professional
INVESTIGATION INTO THE STRATEGIC ROLE AND EFFECTIVE FUNCTIONING OF THE SUPPLY CHAIN FUNCTION IN SOUTH AFRICAN ORGANISATIONS

community in South Africa. Cobus is a prolific industry speaker and has addressed numerous national and international audiences. As a thought leader and passionate advocate of Integrated Supply Chain Management, he has authored many articles on the subject.

Nicole Binnekade, Consultant, Volition Consulting Services, recently completed her BEng (Industrial) Engineering degree at the University of Pretoria with a specialist understanding of supply chain management. She will be working for Volition Consulting Services (Pty) Ltd from 2013, as her interests lie within the Supply Chain Sector. She matriculated with distinction in 2008 from Cornwall Hill College, where she was a member of the Student Executive Council.

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4 June 2013
Structure of Presentation

- Research Methodology
- Participants
- Results
- Conclusions
- Next Steps
Research Methodology

• Literature Study

• Qualitative Study: SCMAT
  – (Supply Chain Maturity Assessment Test)
  – A quick maturity assessment model, used to map an organisation’s current supply chain state.
    • Based on 48 current best practices.
    • Provides an overview of an organisations supply chain structure.

• Interpretation
The resulting overall SCMAT radar diagram of the participants.
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<td><strong>Manufacturing</strong></td>
<td><img src="image" alt="Amka" /> <img src="image" alt="Astral" /> <img src="image" alt="Distell" /> <img src="image" alt="Clover" /> <img src="image" alt="NBL" /> <img src="image" alt="McCain" /> <img src="image" alt="Nestle" /> <img src="image" alt="SAB" /> <img src="image" alt="Tiger" /></td>
<td><img src="image" alt="AfriSam" /> <img src="image" alt="PG Group" /> <img src="image" alt="Afrox" /> <img src="image" alt="Sasol" /> <img src="image" alt="Nampak" /> <img src="image" alt="Sappi" /> <img src="image" alt="PPG Industries" /> <img src="image" alt="Shell" /> <img src="image" alt="Safripol" /></td>
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<td><img src="image" alt="Bytes" /> <img src="image" alt="Pick n Pay" /> <img src="image" alt="Woolworths" /></td>
<td><img src="image" alt="JD Group" /> <img src="image" alt="Kia" /> <img src="image" alt="Pepperidge Farm" /> <img src="image" alt="Stuttafords" /> <img src="image" alt="TFG" /></td>
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<td><strong>Mining</strong></td>
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<td><img src="image" alt="Sapics" /></td>
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</table>
Results (1)

1. Role players in the consumables value chain exhibit a significantly higher level of maturity than role players in other value chains.

2. South African organisations are aligning their supply chain strategies with the broader organisational strategy.

3. Lack of implementation of information best practices within South African supply chains.
4. South African organisations recognise the importance of being customer focused.

5. South African organisations have yet to realise the benefits of collaborating with supply chain partners.

6. Planning, forecasting and replenishment strategies are the backbone of South African supply chains.
Results (3)

7. South African organisations are not placing emphasis on designing agility in their supply chains.

8. Minimal emphasis is placed on minimising inventory within South African supply chains.
Conclusions

• Key requirements:
  – Closing the information gap
  – Aligning the understanding and implementation of supply chain collaboration

• Key learnings:
  – South African organisations are recognising the advantages of managing their supply chains as a competitive weapon
  – A successful supply chain requires a holistic approach; and there is no single best practice that can optimise and manage an entire supply chain
Next Steps

• Improving the research:
  – Understanding relative importance
  – Gauging aspiration (in addition to perceived success)

• Adding reference
  – Peer review
  – Quantitative measurement

• Measuring changes over time
Thank you for participation and the opportunity to share