



## Supply Chain Culture and Performance Case Study: Insights from BakerCo Limited

To test supply chain culture on supply chain performance, Verbeke's (2000) cultural tool was applied to the supply chain of a Northern Ireland company called BakerCo. To determine if culture had a role to play in supply chain performance outcomes, the cultural tool was applied to BakerCo's best performing supply chain and an underperforming supply chain.

The buyer based its selection on *internal supply chain metrics* (see Table 1).

It is clear from Table 1 the significant difference in performance between the underperforming and the best supply chain. For example, overall delivery performance is 49.4% in the underperforming supply chain, whereas it is 96% in the best performing. Also, supply chain costs in the underperforming is 9.7% versus 4% in the best performing supply chain.

Each supplier involved in the case study (both in the best and underperforming supply chain) were of equal strategic importance to the buyer.

The buyer negotiated initial access to both tier one and tier two suppliers within the best performing and underperforming supply chain. The supplier organisations are all NI based and are near the buyer organisation.

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Table 1: Supply Chain Performance Metrics

Comparison Chart of BakerCo Supply Chain Performance Metrics			
Key perspectives	Supply Chain Metric	Poor Supply Chain	Best Supply Chain
Customer facing	Overall delivery performance %	49.4%	96%
	On time delivery to commit %	86%	96%
	On time delivery to customer request date %	35%	88%
	Order fulfilment lead time (Order to delivery cycle) in days	28-42	5-7
	Customer loyalty	28%	75%
Internal facing	Total supply chain mgt costs (% of revenue)	9.7%	4%
	Inventory carrying costs	4.2%	0.7%
	Order Mgt costs (OMC)/Transport, distribution and freight costs (subset of OMC)	5.6%	0.4%
		2.3%	0.1%
	Inventory days of supply	123.4	20
	Cash to cash cycle time(days)	125.3	35
	Delivery cost (% of revenue)	15%	7%

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## Background to participating companies - The buyer organisation

The buyer organisation is based in NI. The organisation has around 300 members of staff and produces a range of perishable products for large retailers such as Tesco, Asda, and Marks and Spencer. The organisation's products are recognised in the industry as leading brands. The buyer organisation invests heavily in new product development to maintain its position as one of the UK's major suppliers to its customers. It has been operating in NI for over 20 years. It is a heavily unionised environment resulting in difficulties changing work practices and terms and conditions over the past 10-15 years. The average number of years' service is 20+ for junior staff, whereas it is around five years for senior staff. Labour turnover is under 2% and absenteeism is 4% per annum.

Departments are broken down into production, engineering, distribution, purchasing, finance, HR, marketing, and sales. Senior management includes Managing Director, and Heads of Production, Engineering, Distribution, Sales, Marketing and HR. Estimated numbers of management are 20, engineering employees 15, distribution 40, marketing, HR, finance, and purchasing all have under five employees, and production has approximately 200 employees (this includes three shifts).

Although the organisation has been largely profitable over the years, the current economic pressures have resulted in an erosion of profitability. With the retirement of many of the senior management in recent times and a young vibrant management team now in place, there is a great appetite and opportunity for organisational change and business improvement to ensure long-term sustainability and competitive advantage. The management team recognise cultural assessment and cultural alignment within their supply chain as a first and fundamental step in this change process.

## Best performing supply chain

### Tier one supplier: Labelco

Labelco is in operation over 45 years with 92 employees in total. It has been working with BakerCo for 15 years and the work with BakerCo represents 30% of their business. This supplier manufactures labels for BakerCo. This supplier prides itself on innovation and service and suggests that such ethos and values results in long-term relationships and repeat business with its key customers.

### Tier two supplier: Inkco

Inkco is also over 40 years old and is also relatively small in size having only 42 employees in total. It has been working with Labelco for 20 years and the work with Labelco represents 45% of their business. This supplier provides ink to Labelco. This supplier has won European awards for its manufacturing processes and regards innovation and flexibility as its core values, which the supplier believes permeate its entire organisation. This supplier's managers state that partnerships are the vehicle to business success.

## Underperforming supply chain

### Tier one supplier: Bagco

Bagco is over 100 years old. This supplier has 112 employees in total. It has been working with BakerCo for five years and the work with BakerCo represents 30% of their business. This supplier manufactures plastic bags for BakerCo. Bagco prides itself in its customer service, time to market, innovation and quality.

Tier two supplier: Chemco

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Chemco is over 18 years old. This supplier has 101 employees in total. It has been working with BakerCo for five years and the work with BakerCo represents 40% of their business. This supplier supplies chemical agents to Inkco.

## Methodology and Results

Management from each participating supply chain organisation briefed employees as part of the monthly team brief on the supply chain culture study. The researchers attended these briefs and were able to distribute questionnaires face to face in hard copy format to employees who didn't have access to email. The remaining questionnaires were issued via the respective human resources manager via email, or to line managers for staff who were not available on the day of issue. Several sealed confidential boxes were located throughout the participating organisation for returns. Some of the email questionnaires were also returned in this way to allow anonymity of staff, whereas some staff were happy to forward via email. All responses were treated anonymously.

## Data collection summary statistics

*Table 2: Best-performing supply chain*

Company	Questionnaires issued	Questionnaires returned	Percentage of returned questionnaires usable
Buyer (BakerCo)	306	181	59%
Tier 1 Supplier (Labelco)	92	45	49%
Tier 2 Supplier (Inkco)	42	27	64%

*Table 3: Underperforming supply chain*

Company	Questionnaires issued	Questionnaires returned	Percentage of returned questionnaires usable
Buyer (BakerCo)	306	181	59%
Tier 1 Supplier (Bagco)	112	37	33%
Tier 2 Supplier (Chemco)	101	32	32%

When we received the responses we compared means between the buyer, tier 1 and tier 2 supplier to check for significant differences (a link in the Do More section will teach you how to do this). We also then added the means to radar plots for ease of understanding (see Figures 1 and 2 below).

In the study, all six categories (process, employee, etc.) from the best performing supply chain resulted in significant differences between the buyer and its supply chain (either tier one or tier two or both). Across each category in the best performing supply chain, the buyer had the lowest mean score. The results interestingly revealed no significant differences between tier one and tier two suppliers.

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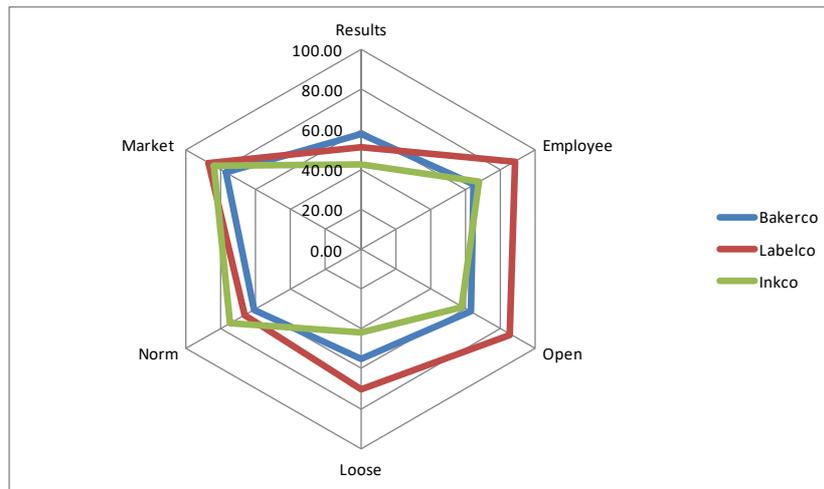


Figure 1: Radar plot of cultural dimensions for best performing supply chain as a percentage

No significant differences were found in the underperforming supply chain. Across all the cultural dimensions Bagco and Chemco's average mean scores were significantly lower than the best performing supply chain.

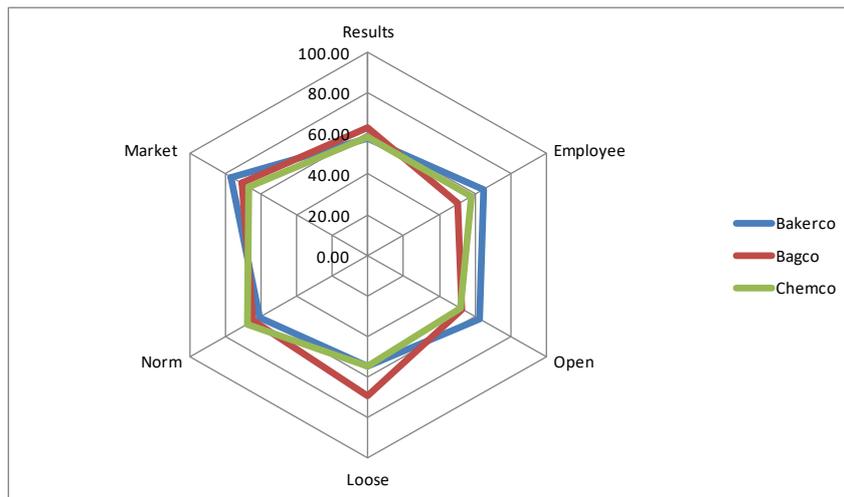


Figure 2: Radar plot of cultural dimensions for underperforming supply chain as a percentage

## Conclusion

Although the ideal supply chain culture would be one whereby each partner scores highly along each of the 6 categories, you don't necessarily need to have the same high supply chain culture scores to reap rewards. For example, in the best-performing supply chain case, the supply base's culture was different, and yet it complemented BakerCo. BakerCo is process-driven and managed by strict rules and standard operating procedures, yet the flexibility and ability to react to unexpected changes in demands by its supply chain partners (demonstrated by the high results-based score) supported BakerCo in being successful. It appears that this responsive nature of the supply base supports the inadequacies of the buyer organisation.

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Unfortunately, the underperforming supply chain had similarly low scores across each category which resulted in a cultural clash. For example, all firms were process-driven and were concerned with the job rather than the person. The results suggests the presence of an inflexible supply chain with an inherent blame culture.

However, whilst the best-performing supply chain of BakerCo was high performing in relative terms to its underperforming supply chain, there is still room for improvement. Currently the buyer culture has low mean scores across the majority of its cultural categories, suggesting much work is still needed to be done in developing a culture which matches its values of openness, autonomous, employee focused and trust.

## Implications under Brexit

Under Brexit, where firms are under extreme pressure to cut costs, revise and restructure their processes and be proactive, having a supply chain culture that is compatible will be vital. For example, in the best-performing supply chain, the tier 1 supplier, exhibiting collaborative cultural traits and norms, tries to develop and educate the buyer through joint cost reduction programmes and create an atmosphere of trust and open communication. This values-based approach results in higher performance outcomes.

## References

Verbeke, W. (2000), "A revision of Hofstede et al's (1990) organisational practices scale", *Journal of Organisational Behavior*, Vol. 21, Iss. 5, pp. 587.