

Visions of a pole position: Developing inimitable resource capacity through enterprise systems implementation in Nestlé

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Leveraging capacity to take an organisation to a position where its competitors cannot challenge its authority is an aspiration of most global organisations. However, enabling creation of such capacity by implementing strategic information systems is a strategy with its own share of risks. Admittedly, such risks can pale into insignificance with the gains that fully functional enterprise wide systems can produce. The resource based view of the firm may be used to appreciate the nature of capacity that can be created to propel an organisation like Nestlé to become a leader in a market characterised by fierce competition. Whereas component based, phased, adaptive, evolutionary approaches have been advocated for most organisations as being effective in combating these hurdles, yet in contrast the literature has remained uninformed by research on large multinational corporations implementing singular ERP systems. Using a case study approach informed by documents, and accounts of key personnel involved in the development of single all encompassing ERP system at Nestlé a critical assessment of the supply chain was undertaken for this paper. This study by examining the effects of ERP implementation on four critical facets of supply chain of Nestlé aims to demonstrate the type of non-replicable capacity that can be achieved in a multinational organisation. The study also underscored the key nature of foresight that the leadership of Nestlé used to support the development and deployment of the enterprise system across 70 locations around the world.

Keyword: Foresight, ERP implementation, Multinational corporation, supply chain management, resource based view

1 Introduction

Foresight is undeniably an intrinsic part of the leadership of a multinational organisation like Nestlé as it is likely to define Nestlé's position in the market and ensure that it is able to sustain such a position over succeeding business cycles. It is clear that initiatives as a result of foresight vary among leadership and organisations. Usually it would be the development of new initiatives that indicate the germination of foresight among leadership. Like the real world of business, most new initiatives also have risks of failure. Admittedly, it would be in the nature of the foresight of the leadership to plan and execute such a plan to launch new initiatives that would provide significant competitive advantage. While launching new products is a type of innovation that enables an organisation to respond to market expectations yet the exploitation of internal resources (Galbreath, 2005) may be able to provide much more long lasting advantages. Such mechanisms can also trigger accrual of superior performance. The resource based view (RBV) of a firm contains a couple of dimensions that could be used to explain how such an advantage could become sustainable over future business cycles. Using RBV it may be feasible to substantiate an organisation's resources through its assets and capabilities. Whilst assets are easily replicable, capabilities can garner advantages that may provide an organisation with a more enduring advantage as they are hard to copy (Wu et al., 2006).

Introduction of Enterprise Resource Planning (ERP) or Enterprise Systems (ES) in Nestlé is one such capability that was central to the foresight of Nestlé's leadership. Zhang and Dhaliwal (2009) argue that IT enabled supply chain management is to a significant extent influenced by obtaining institutional context. At the time the institutional climate within Nestlé was one which was fragmented among regions and it was difficult to develop and deploy strategies which were largely driven by local agendas among the different locations around the world. According to Galbreath (2005) introduction of new IT capabilities produce

tangible and intangible resources for the organisation. It is worth noting that intangible resources in the case of Nestlé could have played a major role in its global success. Liu et al. (2013) through their study in China demonstrates that IT infrastructure and IT performance can distinctly add to a company's firm performance. Competition among resources is a major theme within resource analysis among firms that indicates challenges to a firm's performance. Complementarity among resources is argued by Rivard et al. (2006) as the foundation of firm performance. Such a view also projects the strategic necessity perspective of developing resources. The foresight of the leadership within Nestlé might have been motivated by such a strategic necessity perspective when they supported the long term development of enterprise systems and its subsequent roll out over 70 locations around the world. The debate about strategic necessity perspective is further challenged by Stoel and Muhanna (2009) who argue a distinction between aggregate and specific IT capacity. In the context of Nestlé it is clear that it did have IT systems existent in all of its locations around the world. However, before 2002, Nestlé did face major challenges in trying to map resource use in the regions. So Stoel and Muhanna's (2009) work would be able to explain the advantages of developing specific IT capacity that would drive its supply chain operations.

A key issue that demonstrates strategic foresight of the leadership in Nestlé is the formulation of the IT strategy not as a standalone activity but as a business objective. Leidner et al. (2011) have shown that ambidextrous strategies that include IS innovation tend to have superior firm performance. A key risk that is associated with failure of IT initiatives is the danger of plummeting stock market value of a company's shares. Within such a context Bharadwaj et al. (2009) contend that the leadership would be keen to ensure that a company like Nestlé would succeed as they would also lose out on falling stock value of their interests. The following table lists key literature that was examined for this paper.

Research owner	Focus	Method adopted	Limitations	Implications
Galbreath, J. (2005)	Tangible and intangible resources have been examined. Specific strength is the analysis of the nature of intangible resources.	Hypothesis testing	Convenience sample; respondents mainly middle level managers some of whom did not have adequate knowledge of all resources; all 56 firms were Australia based	Resource impact on firm success may be higher when examined as part of an interconnected system rather than when examined individually.
Liu et al. (2013)	Impact of IT capabilities, viz. flexible IT infrastructure and IT assimilation on firm performance has been examined through a conceptual model	Survey based hypothesis testing through educational institution contacts of managers in industry within China	There may have been other IT or organisational abilities that could have influenced firm performance. Second the study was entirely based within China. Therefore it is probable that the results may not be generalisable to organisations in other geographical locations. Third, the study is based on individual respondents whose views may have been inherently subjective.	Although IT capabilities do not have direct impact on firm performance, they do have an indirect effect through absorptive capacity and supply chain agility.
Rivard et al. (2006)	Complementarities of strategy as a positioning perspective encapsulating competitive strategy framework and the resource based perspective is assessed	Using a model that included the effects of IT support for business strategy and IT support for firm assets on firm performance was tested through a survey of 96 SMEs	Work is directed to the SMEs and hence the outcomes may not be meaningful to generalise for large multinational organisations. Cross sectional as opposed to longitudinal nature of research design implies that true causal relationships between research constructs cannot be inferred.	Complementarity as opposed to competition of IT influences on business strategy and firm performance. Role of IT conceptualised in terms of the strategic necessity perspective.
Stoel and Muhanna (2009)	RBV based contingency approach focused on 'fit' between type of IT capability/resource a firm possesses and the demands of the industry in which it competes. Influence of industry characteristics of	Hypothesis testing using quantitative accounting measures.	Information Week's ranking of organisations is the key to this study obviously this may not be entirely reliable.	The need to distinguish between aggregate and specific IT capability. Appreciation of IT capacity using a more granular measure is probably able to account for variations in

	dynamism, munificence, and complexity were examined to assess their impact on each type of IT capability.			performance.
Leidner et al. (2011)	Firms with defined IS strategies (either IS innovator or IS conservative) perform better than those without defined IS strategies.	Survey based testing of developed model.	Survey based research so cross sectional data has lead to inability to establish causality between independent and dependent variables. Sample was not entirely random and it was from a single industry so results cannot be generalised across industries.	Firms that attempt to be ambidextrous are associated with the most superior performance.
Bharadwaj et al. (2009)	Effects of IT failures on the market value of firms	Sample of 213 newspaper reports of publicly traded that occurred during a 10 year period.	Study is based on a number of assumptions that may not obtain in reality.	Senior executives who hold stock options and have interests in the company would be against the company losing value in the stock market.
Wu et al. (2006)	IT enabled supply chain capabilities of IT advancement and IT alignment are firm specific and hard to copy across organisations	Based on data collected by surveying supply chain and logistics managers in various industries. Hypothesis testing was used to validate the study.	Study relied on cross-sectional data. Collecting data over different time periods using participating managers could have yielded richer results. Second, framework was tested using a single informant from each organisation. Third, used of perceived measures of market and financial performance by managers.	Proper deployment of IT resources in supply chain communication system can help realise the benefits of IT through building higher supply chain capabilities in such areas as information exchange, co-ordination, activity integration, and supply chain responsiveness.
Zhang and Dhaliwal (2009)	Processes by which firms adopt technology for operations and supply chain management or critical factors that may influence the operational value firms gain from	Questionnaire survey method. Hypotheses testing, association analysis between factors through partial least squares approach. The work used a structural equation modelling technique	Primarily focused on China based firms. Organisations outside China may have different consequences of technology adoption. Low response rate is also another facet that may not be	IT enabled supply chain management is to a significant extent contingent upon institutional factors.

	information technology enabled supply chain management.	to examine model and hypotheses.	representative of the whole picture.	
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Table 1: Key RBV based extant research

2 Methodology adopted for the study:

We decided to use Nestlé as a case for this research because it was a multinational company that had various local strands of IT utilisation across 70 geographic locations that it operated in. Using GLOBE the company top management first of all attempted to gain greater capacity to monitor and control productivity within far to reach contexts. Second by enabling the use of GLOBE various efficiencies that connected the supply chain and the consumers of Nestlé products were consolidated on a worldwide basis. An inductive case study (Yin, 2003) approach was adopted for this study. Narrative contributed by the second author who was a key player in the ERP implementation in Nestlé formed the central plank on which the story was structured. The four facets of supply chain management formed the basis on which the story was orientated as it seemed to be the most important ambit alongside others that included Finance, Factories, HR & Payroll, Sales & Marketing. Nuances within a continuum of expectations and experiences were captured within the narrative.

All names of Nestlé personnel who were interviewed apart from CEO of the time Peter Brabeck have been anonymised to protect their privacy. The study benefited from a range of confidential documentation that was used to provide both micro as well as macro dimensions of the research. The study was connected to the micro dimensions of a major successful ERP implementation in a multinational organisation spanning operations in 70 countries. The study is led by business implications rather than technical aspects of systems development. Despite major reservations in the literature on the need for organic development and the realisation of regional aspirations, this study could clearly demonstrate a clear development of capacity that emerged with the use of a one size fits all approach. In

hindsight, it might seem that successful ERP implementation probably could happen only through the one size fits all visualisations.

3 Role of ERP systems for Nestlé within IS/IT infrastructure

As far back as 1990 Nestlé took a strategic decision to deploy SAP as its ERP provider. Throughout the '90s the bigger Nestlé businesses in the UK, France, Germany, Italy, Spain and the USA started to implement modules of SAP. By 2000 there was a lot of SAP experience and knowledge within Nestlé and the above countries were well on the way to running significant parts of their businesses on SAP. The corporate decision that said “If you can implement it (a certain functionality) using SAP then you should” (rather than build it from scratch). Bespoke systems design and development was by now seen as slow to implement, expensive to build and maintain and, crucially, lacking in the sort of integration which SAP was famous for providing.

In late 2000 the decision was taken by the main Board (the “EBM”) in the headquarters at Vevey, Switzerland that a centralised project – called “GLOBE” – should be funded to design a SAP template which would provide standard functionality covering all parts of the Nestlé business – Finance, Supply Chain, Factories, HR & Payroll, Sales & Marketing. This was a very bold move demonstrative of foresight by the leadership of Nestlé - which involved 700 people – mostly drawn from areas within the actual business rather than the various IS/IT departments – and which was publicly stated to have a budget of \$2 billion attached to it. All Nestlé businesses were told they would implement this template and aggressive timelines were drawn up to implement in all 70 countries where Nestlé operated by 2005. All 250,000 employees would be affected. This was the start of the biggest ERP implementation in the world.

At the outset it was very clear that CEO Peter Brabeck was not only the chief sponsor but also, and very importantly, was passionate about the aims and objectives of the project.

Indeed, he went so far as to say that GLOBE would be his chief legacy to the company and that his success as CEO should be judged by the success of GLOBE. In hindsight this demonstrates the type of foresight that the CEO brought towards development of GLOBE.

It is important to understand 2 things at this stage – one to do with Nestlé’s culture at that time, the other to do with the way the project was presented at its unveiling to the heads of the individual Nestlé businesses – the “Country Managers’ annual Conference” – in early 2001.

The culture had always been that the individual businesses in each country were “king”. They had almost total independence on a day-to-day basis. Once, the annual business plan had been signed off by HQ in Vevey the CEO in the country was free to do largely as (s)he pleased. This was the way the company had always been, would always be and was, indeed, seen as a strength by senior Nestlé people; it was, in fact, the conventional wisdom was that the company had been successful down through the decades because of this independence. Staff from “the Centre” had to ask for permission to come and visit a country and it was not unknown for requests to be turned down. There was a “Technical & Standards” team for IS/IT at Vevey but it was very weak and the major Nestlé businesses certainly did not follow its guidelines nor rely on it for any advice. So, a dictat to implement a template-based design from the Centre was hugely counter-cultural.

The second point is to do with the project’s marketing. Brabeck understood very well that he was “going for broke” by having such an ambitious and expensive vision. So, from the very beginning GLOBE was always presented as “not an IS/IT project” but as a way of allowing the whole company to benefit from the “Best Practice” that GLOBE would discover within the company and then spread throughout it. The phrase was delivered over and over again “GLOBE will deliver common Best Practice, using common data based on common infrastructure”. It would allow “the company to be big on the inside so it could be big on the

outside” - in other words economies of scale which Nestlé should have been enjoying (but wasn't prior to GLOBE) would result from everybody doing the same things in the same ways.

4 Principal dimensions of supply chain

4.1 Sales Order Processing (SOP)

An essential part of any business! The nodal point where all the back-office Supply Chain processes to do with making and distributing finished products meet the front-office processes carried out by the Sales people, namely “getting an order”. This had long been seen as an area where Nestlé had as many different ways of doing SOP as there were countries. Performance by individual countries in this area was highly variable – the key metric was known across the whole company, rather obscurely, as “Case and Line Fill Rate” (CLFR) and measured what percentage a customer actually received on time of what they had ordered. Competition in the FMCG arena is fierce – Unilever, P&G, KJS and Nestlé are all engaged in an intense struggle for what is delightfully called in the industry “share of throat”! In addition, the supermarket chains increasingly boss the terms of trade and make life very difficult indeed for each of these producers. The CLFR metric was thus seen as absolutely key for Nestlé – the target was to get everybody up to 97.5%. But what was the starting position? The difficulty in implementing a standard way of working here is well illustrated by the fact that it took several months to agree exactly what was meant by an “order”! The principal difficulty was in answering the question “At what point do you say you have sold something?” Some countries put orders on to their sales statistics at the point the salesperson, out in the field, took the order with the customer. Some did it at the point that the products on the order were confirmed as being in stock and, therefore the order could be fulfilled. The other possibilities included – when the order was picked and assembled in the warehouse;

when the order was in transit on the truck; when the order had been delivered and a signed Proof of Delivery (POD) had been obtained from the customer; when the invoice was generated and sent out; when the Accounts Receivable department either received payment or sent out a dunning (reminder) note. In the end, for various reasons, the design team said it should be at the point that the POD could be entered into the system and legal ownership of the product passed from Nestlé to the customer. Most countries prior to GLOBE operated order-definition policies which were “ahead of “ POD and hence they took a one-off hit when they implemented because they lost several days sales and this became one of the most difficult political issues that had to be overcome with the CEO and Sales Director of each country!

4.2 Purchasing

Purchasing in most companies is a fairly straightforward business area – both to understand model from a process point of view and also to implement from a technology point of view. To understand the enormous commercial opportunity that Purchasing represented for Nestlé prior to GLOBE it is important to appreciate 2 things. The first was how fractured the company was at every level when it came to buying things. This was in turn the case because of the way the company had grown over the decades since WWII, ie through acquisition rather than organically. This meant that major “old” Nestlé countries like France, Germany, Italy and the UK had accumulated lots of different businesses that had different ways of working, had their own list of suppliers which nobody had ever asked them to merge or rationalise. These countries were effectively “food conglomerates” that were not really coordinated from a purchasing point of view. The different divisions (“Grocery”, “Food Service“, “Water”, “Petfood” etc etc) did not talk to each other about any aspect of their spending (or anything else commercial, come to that matter!). The second crucial point is the

scale of spend. Nestlé SA, in the early 2000s, was spending approximately \$35 billion on raw materials (known as “directs”) and “indirects” (i.e. phones, office supplies, consultancy, training etc). 3 levels of purchasing coordination were possible for any given spend :-

- ❖ *World-wide*: obviously the best option if this was possible, frequently it wasn't for all sorts of reasons. For major directs like coffee and sugar it was possible and some element of coordinated buying was taking place prior to GLOBE but it was very limited.
- ❖ *Zone*: Nestlé had recently reduced from 5 zones to 3. The new zones were Europe (EUR), the Americas North and South (AMS) and Asia, Oceania and Africa (AOA). Most purchasing should have been possible at this level – prior to GLOBE none was.
- ❖ *Country*: this level was not even very desirable as an end result in itself but would have been an improvement on what happened in most countries!

Although in many respects a very mundane area the GLOBE Purchasing Team, ably led by a very aggressive American called Spaulding, came up with the team motto “Find the money, Get the money, Keep the money”. In other words, they knew all sorts of savings were possible if everything was organised differently. In many respects, the savings would result from organisation redesign rather than directly from implementing GLOBE. But certainly GLOBE would help and certainly vast sums could be saved on the \$35 billion. Subsequently, it became clear that Spaulding's motto was correct – more business benefit (i.e. bottom line savings) resulted from purchasing changes than from any other area. GLOBE guaranteed that people could not buy anything through some local, “back-of-a-lorry” approach because all purchases required a Purchase Order (PO) and the system did not let anybody generate a PO against a supplier that was not on the list of approved suppliers and this list was controlled by the Zone people.

4.3 Distribution

In GLOBE terms this was always called “Materials Handling”. The scope included any and all handling of finished product (only), i.e. once a factory had shrink-wrapped a pallet it was an MH responsibility to shift that pallet from the factory gate to whichever warehouse was supposed to receive it. Also, and more obviously, it was an MH responsibility to shift pallets that formed a customer’s order from the warehouse to the customer’s premises. There was wide variation throughout Nestlé prior to GLOBE. Most large countries had outsourced it, many smaller countries had not. Some were using big, centralised warehouses with high-levels of automation for “put-away” and retrieval. Some, the ones who typically had done some SAP implementation already, had some degree of integration of MH with the factories and with the SOP department. At the other end of the spectrum many were not using any sort of system at all.

Another challenge was that a Key Decision from GLOBE at the outset was that MH should mark out the warehouse floor and pallets should be put away in a strictly controlled and rotated way aided by an accurate floor plan which would allow for as much automation as the country was capable of dealing with (this automation, the micro-management of the warehouse floor would always be done by country-specific software that had to interface with GLOBE via defined APIs but which was always separate from SAP). In addition, every warehouse had to be able to deal with part-pallets because SOP was going to deal in part-pallets! This issue, which is difficult to deal with technically, had always been fudged by each country before and there was no single way which was recognised as effective in all situations.

To make matters worse there was a real-time element to this area as follows. The factories produced finished product, large amounts of it in most cases (hundreds of tonnes daily), and space to store it temporarily was always in short supply. The MH team had to supply trucks at

just the right rate in order to keep up with what the factory made. Too few trucks and the factory rapidly ran out space and, in extreme conditions, would have to stop production until the backlog was brought under control. Too many trucks and the factory again ran out of car park space, turning space etc etc! How did MH know when to send trucks? Because they were receiving SAP messages throughout the day from the factory as each pallet was produced. If the messages were delayed then chaos was not far behind!

The final challenge was that the SAP module that provided this MH functionality at this time was very poor and those countries that had already tried to implement it did not like it and were pushing to use something else! It was quite clear that in this area more than most though the business benefits that came from integrating MH backwards with the factories and forwards with SOP were very large and that if all of these areas implemented the relevant SAP modules integration was far more likely to happen than if a mix-and-match approach was taken.

One of the constraints when choosing a package software vendor is to check how flexible they will be about making changes to their software when the basic, default functionality does not do what you want. In fact, it's not close and even when you have explored and exhausted all the configuration options to try and get it to accommodate what you want you are still some way off the minimum that you need. In these circumstances SAP offer you their "SDP" – Strategic Development Programme. This means you write the spec and they will deliver what you want. They will incorporate it into their standard product over time so that you are not left with a maintenance headache and your company will be benefitting from this extra capability ahead of your competition. This is not a free service, in fact its very expensive! By 2001/2 SAP was sufficiently dominant in the packaged software marketplace that very few of their customers ever got offered the SDP option. Nestlé was one however (it had just signed what was, at the time, SAP's biggest single deal) and the MH

module was upgraded in line what we wanted. In fact at one stage, Nestlé had 5 SDPs underway concurrently!

4.4 Demand & Supply Planning

This process area dealt with 2 very different parts of the business. The Demand Planning (DP) part was the new term for “Sales Forecasting”. This had, as the term implies, traditionally been carried out by the Sales and Marketing area. There were very large variations in how this forecasting was carried out – variations in level of detail – was it done SKU by SKU or by groups of “similar” product, variations in time range – was it done for a few months ahead or as GLOBE demanded for the next 18 months, variations in accuracy, ie were the forecasts actually linked to marketing campaigns or was it just guessing! Many smaller countries hardly bothered to do DP at all, they simply attempted to sell whatever their own factories had made for them or they imported product from Nestlé businesses in other countries if they could get hold of it.

What GLOBE proposed was a complete and fundamental overhaul of this area of activity. A new D & SP team was to be set up in each Nestlé business. Its responsibilities were to come up with an overall plan for every SKU for a rolling 18 month horizon. The DP was to be agreed by a multi-disciplinary team composed of S & M, Production, Finance and Supply Chain people. This team had to meet every month and formally adopt the agreed plan as the common set of numbers that the entire business was to work to going forwards. This was revolutionary and was not done this rigorously in any Nestlé business at the time – not even in the very large ones such as the USA, France, Germany or the UK.

To complete the revolution, GLOBE introduced a very complex piece of SAP to this newly-created Planning Team. The SAP module name was APO – Advanced Planning &

Optimisation. It was a very new module within SAP and was used by very few end-user companies as a result. There was very little consultant expertise around at the time and no other company was attempting to use APO in quite such a central way as Nestlé were, ie putting it at the heart of the Supply Chain. If the introduction of APO as part of GLOBE failed then the whole of GLOBE failed. The central job that the Planning Team now had was to fit together 2 halves of a very complex “onion”, namely what the company thought it could sell going forwards and where/how/when that (long) list of products would be made. In order to “nail” what was seen as an area which the business as a whole had always executed very poorly, the decision was taken by the design team within GLOBE to do both halves of the planning at a very low level of detail.

4.5 Manufacturing

Nestlé sees itself as a manufacturer of branded product – 2 key themes are already apparent namely that the brand is important but also that the product has to be made in the first place. All Nestlé products are made by Nestlé factories. The tradition of excellence in manufacturing is part of the company’s culture – in essence Nestlé people think they can make everything from infant formula milk powder through to pet food better than anybody else. The several hundred Nestlé factories around the world all had a long-established history of making high quality product but, as was common in the rest of the business, there were big variations in the way in which this manufacturing was done from a process perspective.

GLOBE brought 7 big changes to the factories – some organisational but most of them technical in nature. The biggest was that as part of the Demand & Supply Planning continuum (described above) the factories now had to make-to-order (1) in a very controlled way and in a way which was completely alien to most of them. Traditionally, the Factory Manager’s main objective – a self-imposed one – was two-fold : firstly, to keep his factory

working as close to 100% capacity throughout the year as was practicable; secondly, to keep his unit costs as low as possible. The second cost-based objective followed naturally from the first objective via very pronounced economies-of-scale. And both objectives came from the Factory Managers' very acute understanding of the political realities of "production", i.e., factories that were seen as "busy" and "efficient" were more likely to remain in existence than those that weren't. GLOBE challenged this world view very directly. Post-GLOBE the factory got told what to make by the Planning Team. The factory lost ownership of the key high-level plan – the Master Production Schedule – which said how much of each product would be made each week for the next 18 months. The factory had ownership of a new GLOBE-introduced low-level plan called the Detailed Production Schedule (2). This was determined by the MPS and was simply a more detailed extension of it for the next 2 weeks and gave the factory line by line and shift by shift information of what to make. Given that GLOBE demanded a very detailed 'factory mapping' to be done prior to go-live, i.e. how many lines, what capacities, how many people, what shifts etc, the DPS could be automatically generated and then tweaked by Shift Supervisors ('Team Leaders') at the time it was used. From being a "law unto themselves" the factories suddenly found themselves very constrained and also on the receiving end of lots of "instructions" which other people had generated.

Further to this, not only did the factories not make their own production targets any more but the targets themselves were re-defined and made much rigorous. In the same way that the SOP process (see above) was measured by the CLFR report, the factories had always seen their own external measurement as the MSA report – Master Schedule Attainment report – in other words what the factory actually made compared to what it was supposed to make. In the past the factory had controlled all 3 variables of this metric – what the original target was, what had actually been achieved and how the report did the calculation between the two.

It was common for output tonnages to be ‘massaged’ and put in to different production periods in order to make the factory “look good”. GLOBE’s calculations were, by comparison, very strict and the report itself was now not in the hands of the factory management team (3). The start and end of month dates were fixed in the calendar and the factory could not vary them. Across the entire Nestlé world 400 factories stopped using a variety of calendars for production periods and universally adopted the calendar month as the unit of time for production (4). The effects of this on staffing were not inconsiderable. The same sort of change was also made for the quality control. And the practice of “backflushing” was simply not possible within a GLOBE-managed factory (5). Backflushing occurred whenever the factory simply went ahead and made whatever it could and then made the supply targets “fit” what had been produced. Backflushing was common where raw material supply was unpredictable, or where line outages were common or where factory discipline was low, ie wherever a poorly managed or unmanaged situation caused variation from what was expected in theory. The regime that GLOBE brought simply made this impossible. The DPS was determined almost exactly from the MPS and factories either made what was expected or they didn’t but they couldn’t make something outside of the plan.

The quality control process under which all of this activity was carried out was likewise immutable (6). The quality sampling regime – how often to sample - was decided in advance as were the tolerances for what was acceptable for colour, weight, material composition etc. All of this data was put into the manufacturing part of GLOBE and was used directly by the Quality team in the factory. Pallets of finished product could only be released to the Materials Handling (“Distribution”) people in the warehouses once all the quality tests associated with a particular product had been passed.

Finally, the factories had a layer of management taken out (7). The Team Leaders who were effectively in charge of the lines at the point that production was actually carried

out now reported directly to the Factory Manager instead of indirectly via somebody else. This gave the FM a lot more work to do in terms of day-to-day operations. The logic for the delayering was argued on the basis that the FM now had less “strategic” work to do, i.e. less work deciding how budgets, targets and reporting would be aimed for each year.

5 Conclusions

As shown by Galbreath’s (2005) research on which resources matter the most for firm success – it is obvious that the intangible capacity that was created within Nestlé by the knowledge and experience gained by the staff implementing GLOBE transformed it into an organisation with non-replicable resource capacity. Taking 700 staff members to Vevey, Switzerland to train them using a single system that then would get rolled out across all 70 regions showed the foresight of Peter Brabeck and reiterates other international research on ERP that illustrate support of top management as key. For instance Ngai et al (2008) studied projects across 10 different countries and regions using 18 critical success factors where ‘top management support’ and ‘training and education’ were the most frequently occurring parameter for successful ERP implementations. Contemporary to GLOBE implementation in Nestlé Sarkis and Sunderraj’s (2003) study in Texas instruments demonstrated that like Brabeck at Nestlé a constancy of vision and standardisation of internal processes and important IT systems to support market needs where the foundation of the success at Nestlé.

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Biographical Notes

Amit Mitra is a senior lecturer in information management at Bristol Business School. Dr Mitra's research interests include enterprise systems, information systems success, strategy in information systems, and information systems driven knowledge development.

Peter Neale is an IT professional with extensive industry based experience of developing information systems. Peter was involved in a leadership role in the development and deployment of SAP based ERP systems within Nestlé. Consistently being active in teaching, learning and practice have been Peter's interests beyond his working career. Being an

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