Navigating a South African enterprise through the uncharted waters of the global service economy

by Dr Richard Weeks and Dr Siebert Benade

In ancient times, cartographers would label uncharted waters with "Here be Dragons"…

Tom Peters (2006:19)

Metaphorically speaking, the dragons that Tom Peters refers to illustrate a sense of having to deal with the unknown and unexpected that has become part of the fabric of the modern-day global service economy. Navigating the South African enterprise through these uncharted waters is fraught with challenges, or dragons that need to be slain or tamed, and in this paper an attempt will be made to identify some of these challenges.

Service science, both as a field of academic research and management practice, has gained significant ground. At the core of this emergent trend is a fundamental change in the global economy, where services constitute over 70% of the global economy. South Africa is no exception. In terms of its gross domestic product (GDP), services account for just over 65% and agriculture 3.2% respectively (Weeks, 2008a:124). South Africa thus has a dual service and manufacturing economy.

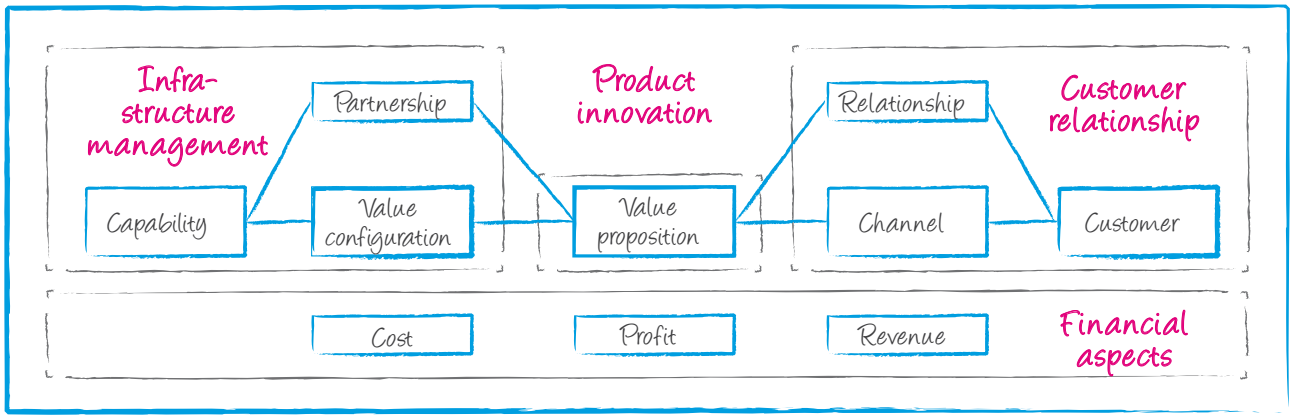
This implies that in order to gain a more significant share of the market, manufacturing institutions will need to incorporate a service component into their business operations. This process has been termed 'servitisation'. Servitisation does not merely entail adding a service layer to existing products. Services are fundamentally different in nature to products, and the marketing and operational details involved are more difficult to deal with. The core aspect of servitisation is the merging of manufacturing and services to provide individual clients with a bundle of products and services that collectively meet their needs. Servitisation constitutes the first challenge of the service economy; one that South African manufacturing institutions need to overcome if they are to significantly increase their revenue-generating capability and profit margins.

Services involve the client in a co-creation of value in meeting his or her needs, something that is avoided as far as possible in a traditional manufacturing environment. Client involvement requires increasing attention to facility design, aesthetics and positioning. The introduction of a service component introduces a 'front stage' element where client and staff encounters take place. This stands in contrast to the traditional 'backstage' environment where the manufacturing and service support operations take place. It is important to note that the backstage operations are of a transactional orientation, while the front stage introduces the concept of 'relationships' that need to be established, managed and maintained.

The front office is where clients gain a first-hand impression of the institution and its service quality. Even institutions that have innovative products may lose clients if competitors can convince clients that they are able to provide superior service during the service encounter. Service innovation consequently assumes definite consideration as part of the servitisation process.

Services are intangible in nature. They constitute mental representations that embody a sense of novelty that cannot be easily patented. This intangibility presents clients with the difficulty of evaluating not only the services that are marketed, but of considering what they are paying for. Services, unlike products, do not involve a transfer of ownership, but of use or value addition. Combining a bundle of services with products into a value proposition for clients has immense marketing, strategic and operational implications, and implies the need for a new business model. The development of a new business model entails more than merely adding an additional services layer to an existing manufacturing tier of operations. The transition is far more complex, as it requires a change in the very culture of the institution itself. It further implies a need for a new skills profile for managing the servitisation process.

Service science as a field of research and management is gaining relevance. This has not gone unnoticed. The University of Pretoria's Graduate School of Technology Management



1. The business model framework.

(GSTM) has realised that the skills required for dealing with the escalating trend towards servitisation are in short supply, and it is in the process of introducing service science as a field of research and study. The first course, entitled Engineering Services Management, was launched in June 2009, to be followed by an advanced course in 2010. As far as could be ascertained, this will be the first such domain of study offered at an academic institution in sub-Saharan Africa.

Servitisation

As indicated, servitisation entails the need for a fundamental change in the institution's business model. Osterwalder (2004:337) views the business model as a framework that describes the business logic of an organisation, which is founded on four pillars, namely product innovation, customer relationship, infrastructure management and financial aspects. Of particular relevance is the reference to the need for managing both product innovation and customer relationships, the latter being an inherent aspect of consideration in service management. The pillars are decomposed into four building blocks by Osterwalder (2004:338) that in essence constitute a business model framework (depicted diagrammatically in Figure 1).

Prof Andy Neely (2007:4) presents a slight variation to the business model by defining the value proposition as a "bundle of products and services that the company offers in an attempt to create value for the customer". This definition resonates with the meaning associated with the concept 'servitisation'.

The service economy is highly competitive. While most institutions offer a very similar range of products, they can differentiate their value propositions by the services they offer their clients. The business model required to navigate South African institutions through the uncharted waters of the service economy will need to define an innovative value proposition to gain a competitive advantage in the marketplace.

Client needs and expectations fluctuate and change, and institutions need to be flexible and able to innovatively adapt their value propositions to meet these changing needs. In effect, the value proposition needs to be customised for each client. This presents significant challenges to the backstage operational units that have to deliver on the offers made to clients. The front office marketing function often co-develops a value offering with the client that puts extensive stress on the institution's existing infrastructure.

It is therefore essential that backstage staff form part of the team that negotiates the co-development of the business solution.

South African manufacturing institutions are increasingly confronted with having to put together business solutions that incorporate a number of services. The services offered and the relationships that are established with clients serve to 'lock in' clients and make it difficult for them to move to competitors who may be offering a slightly better product. Substantial revenue and profit margins can therefore be generated from products with relatively long life cycles.

The innovative use of technology has opened a host of possible relationship networks that may be established. This is most obvious in the use of web-based service delivery. The manufacturing business model's constraints of time, geographical and institutional boundaries become of lesser concern, but new challenges emerge, such as issues of security in the use of web-based technologies. New technology and its application in providing clients with new value propositions are constantly evolving, and this undoubtedly results in unprecedented global competition, which institutions need to contend with in the development of the servitisation business model.

The accent placed on relationships leads to a new challenge: the need to manage the intangible human aspect of emotions, feelings, fears, values, beliefs, expectations and similar attributes that act as behavioural determinants. In moving from a purely manufacturing environment to one that is service-dominant, the human elements associated with relationship development and maintenance are among the biggest challenges. This implies that managers and staff have to acquire new skills to deal with these intangible human aspects.

The culture-related implications of servitisation

The concept 'organisational culture' has gained acceptance as a means for understanding human systems. Schein (1997) offers a formal definition of the concept: "a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way you perceive, think, and feel in relation to those problems."

Tosti (2007:21) argues that one way to define culture is "the way a group of people prefer to behave" and then goes on to suggest that "the trick for organisational leaders is to find ways to ensure that the company culture, that is the way their people prefer to behave, is supportive of what is needed to successfully deliver the company strategy." From a servitisation perspective, it would seem to imply that the institution's culture needs to support the servitisation process.

Within a management context, much of the literature relating to organisational culture has a scientific management approach that is rational-deductive in nature and that assumes linear causality.

In this regard it is interesting to note that Dayaram (2005) claims that "most South African organisations are managed within a Western linear 'cause-effect' paradigm." The impression is that one needs to determine the institution's prevailing culture in its predominantly manufacturing context, ascertain the desired cultural attributes for a service-dominant business setting, and actively manage the culture transformation as part of the servitisation process. It is not clear how this should be achieved in practice, but leadership is generally deemed to play a crucial role in managing the change process (Munro and Beeson, 2002).

From a complex adaptive systems (CAS) perspective, organisational culture is seen as being emergent in nature, and it can therefore not be intentionally managed to inculcate a specific required culture in an institution. It consequently tends to contradict the traditional assumption of being able to intentionally engender a specific desired culture in the institution. According to Seel (2000:2), emergent culture is the "result of the continuing negotiations about values, meanings and properties between the members of that organisation with its environment." The notion of culture emergence implies that it is in a constant state of flux, which means that it defies predetermined predictability of outcome.

In this context, it is understandable that researchers such as Schneider, Brief and Guzzo (1996:7) argue that companies encounter difficulty in engendering change "because culture is not directly manipulable." Instilling a service-orientated culture in a traditional manufacturing institution will thus not be an easy task.

It will best be achieved by living out the values, beliefs, principles and ethics that underpin 'service excellence' in the day-to-day service encounters between the institution's staff, clients and stakeholders. As noted in Figure 1, customer relationships form a very distinct component of the business model. The cultural attributes that emerge from these relationships and the social interaction that take place is a reflection of the emergent culture. Astute institutional leaders build on the system of cultural values and beliefs that emerge from mutually satisfactory service encounters, and the stories that reflect these values and beliefs are instrumental in conveying messages of what constitutes service excellence.

Culture is constantly evolving as the shared experiences give rise to a new emergent value system. Predicting the nature or outcome of these cultural attributes is near impossible, as there are many factors that influence their emergence. At best, executives and managers can detect and interpret the cultural trends and value systems that emerge. They can then attempt to stimulate positive trends and disrupt negative trends. Nurturing a culture of service excellence therefore resembles a constant process of emergent renewal, one that in practice is never-ending.

The changing skills profile associated with a service-dominant business model

People with the correct skills profile form the intellectual capital that is critical for organisations to gain a competitive advantage in the global service-dominant marketplace. The South African market is small. Institutions need to compete in the global arena if they are to grow significantly and reduce the level of unemployment in South Africa.

This brings one to the following question: What constitutes an appropriate skills profile for South

African institutions to effectively compete in the global marketplace? A recent study by Cambridge University resulted in the production of a white paper entitled *Succeeding through service innovation: A service perspective for education, research, business and government*. This white paper states that "T-shaped professionals are deep problem-solvers in their home discipline but also capable of interacting with and understanding specialists from a wide range of disciplines and functional areas" (IfM and IBM, 2008:11). In a nutshell, they are professional people with a well-established and in-depth understanding of their professional discipline, which is reflected in the vertical component of the T, while having a very wide understanding and experience in a number of related disciplines associated with service science, reflected in the horizontal component of the T. Figure 2 (Van Droogenbroeck, 2007) presents a model that reflects the multidisciplinary nature of the T-shaped people concept.

An important characteristic of T-shaped people is their ability to explore and analyse service-related issues from different disciplinary perspectives and discuss the specific issues of interest with experts from the diverse disciplines concerned. Marketing professionals are increasingly confronted with a need to advise clients on highly technological and engineering-related issues, but they do not have the technical expertise required. In moving from a manufacturing business model to one of offering clients a solution-driven value proposition, it will increasingly be essential for engineers and technologists to be able to converse with the diverse people involved on an equal footing, implying a need for acquiring a T-based knowledge and expertise profile.

One of the specific objectives of the GSTM's engineering management

→ *2. T-shaped people.*

programme is to extend the scope and field of engineers' expertise to enable them to interact with clients, suppliers, stakeholders and competitors on a level playing field. These skills are in high demand in government, business and industry and are not available. If South African enterprises are to successfully navigate the uncharted and turbulent waters of the global services marketplace, they will need to acquire employees with the T-shaped expertise profile. The GSTM's domain model provides an ideal opportunity for a number of derivatives based on a single engineering or technology platform with the same architecture for responding to the specific skills needs of various industries in the South African dual manufacturing and services economy.

Navigating the uncharted waters of the global services economy

The global and local South African marketplace is one where clients are increasingly requiring value propositions that meet their specific needs, and where competition is rife. This environment is also one where unexpected and unforeseen events suddenly emerge that can disrupt the institution's operations. These cannot always be anticipated and are fraught with unexpected consequences. Management has to deal with them without disrupting the flow of services and products offered to clients. This implies that institutions need to acquire a sense of resilience towards the unexpected, referred to by Nassime Taleb (2007:xvii) as the emergence of 'Black Swans'.

The life cycle of products and their associated services seem to have decreased significantly. This has led to market conditions that thrive on innovation, as opposed to traditional longer-term manufacturing stability. Not only are market conditions subject to constant disruption, but with advances in communication technology the very fabric of the global marketplace has changed. Executives and managers are redrafting their institutional maps for dealing with such situations, making use of scenario planning techniques.

The problem with this approach is that often an event arises that has not been considered. It would appear that the service economy is extremely complex and turbulent, and that a scenario-based approach is often not all that effective in practice.
A more effective approach may be to make use of a CAS approach, which assumes that institutions are embedded in an environment that is essentially unpredictable and that management and staff can at best only constantly monitor the environment to detect the first warning signs of pending change. It is further contended that institutions can then attempt to stimulate favourable trends of opportunity, while attempting to either disrupt trends that hold the potential to negatively impact on the institution or to rapidly adapt to deal with the situation that arises. The latter is based on a culture of resilience.

Concluding thoughts

Institutions that adopt a strategy of servitisation have to address several fundamental challenges. Adapting a new business model has significant cultural implications, and traditional approaches may not be effective in practice. This implies that management needs a new set of multidisciplinary skills to deal with the contemporary global service economy and marketplace. This environment is not only extremely competitive, but also very turbulent and subject to disruptive change. The traditional well-charted maps of a passing manufacturing era are no longer adequate for navigating the uncharted waters of the service economy. This implies a need to redraft these maps making use of new tools and methods associated with CAS. Institutional resilience must be considered as a means of ensuring the institution's survival while adapting to the new service economy.

Dr Richard Weeks *(right) worked in engineering and management for the City of Johannesburg for over 30 years. He later joined IBM as Manager: University Relations and Research for sub-Saharan Africa. He is currently a researcher and lecturer in the Graduate School of Technology Management at the University of Pretoria.*
(richard.weeks@up.ac.za)

Dr Siebert Benade *(left) is a lecturer in systems engineering in the Graduate School of Technology Management at the University of Pretoria.*
(siebert.benade@up.ac.za)

References

1. Dayaram, K. (2005). Navigating complexity: The dynamics of organisational culture during a merger. *Research and Practice in Human Resource Management*, 13(1):71–84.
2. Ginzburg, I. (2005). Innovate. Presentation, IBM Haifa Research Centre, 15 December.
3. IfM and IBM. (2008). *Succeeding through service innovation: A service perspective for education, research, business and government*. Cambridge,UK: University of Cambridge Institute for Manufacturing.
4. Lundberg, CC. 1985. On the feasibility of cultural interventions in organizations. In: Frost PJ, Moore LF, Louis MR, Lundburg CC and Martin J (Eds), *Organizational culture*. London: Sage:169–185.
5. Munro, P and Beeson, J. (2002). Leadership's purpose: Attaining a culture of understanding. Paper presented at the INTERCOM Conference, Dublin, Ireland, 16 – 19 October. [Online] Available at: http://www.intercom.museum/conferences/2002/munro.pdf [Accessed 4 April 2009].
6. Neely, A. (2007). *Perspectives on business models*. Cranefield University: School of Management.
7. Osterwalder, A. (2004). Understanding ICT-based business models in developing countries. *International Journal of Technology and Management*, 3(2/3/4): 333–348.
8. Padgett, D and Mulvey, MS. (2007). Differentiation via technology: Strategic positioning of services following the introduction of disruptive technology. *Journal of Retailing*, 83(4):375–391.
9. Peters, T. (2006). *Re-imagine*. London: DK.
10. Schein, E. (1997). *Organisational culture and leadership*. [Online] Available at: http://www.tnellen.com/ted/tc/schein.html [Accessed 5 March 2009].
11. Schneider, B, Brief, AP and Guzzo, RA. (1996). Creating a climate and culture for sustainable organizational change. *Organizational Dynamics*, 24(4):7–19, Spring.
12. Seel, R. (2000). Culture and complexity: new insights on organisational change. *Organisations & People*, 7(2):2–9, May.
13. Tosti, DT. (2007). Aligning the strategy and culture for success. *Performance improvement*, 46(1):21–25, January.
14. Van Droogenbroeck, P. (2007). Service science. IBM, Belgium and Luxembourg.
15. Weeks, RV. (2008a). Nurturing a culture and climate of resilience to navigate the white waters of the South African dual economy. *Journal of Contemporary Management*, 5:123–136.
16. Weeks, RV. (2008b).The services economy: a South African perspective. *Management Today*, 24:40–34, February.