

systems thinking

Head of Technical Services at Black Mountain Mining (Pty) Ltd, echoes this, adding that the GSB's SYSTAL challenged his leadership approach and showed him his blind spots developed over years of management – exactly what he required as an executive to move to the next level.

"What intrigued me in particular was the ability to see the interconnectedness of my environment and grow beyond my day-to-day issues. It also helped me to get my head into strategic thought mode and where we as a leadership team want to take

the business. Through using the systems thinking methods I have taken better time to understand the dynamics of a problem and the result has been decisions and actions that are more impactful.

"And this mindful appreciation of interconnectedness has not only been restricted to the workplace – I have seen benefits in other areas of my life as well."

This positive feedback has inspired EMBA Director Ryan to initiate a new workshop which introduces the EMBA methods to executive teams at businesses across SA.

"This workshop shows executive teams just how these methods can shift their decision-making to a new level.

"The workshop is offered free and in-house at a company – it is important to engage with the South African management community and civil society and this hopefully will encourage more breakthroughs at businesses," says Ryan.

The first of these workshops was recently run with the executive team of COEGA and Ryan welcomes requests from executives wishing to explore the methods in this way.

Case Study

A systems thinking approach to product design

Systems thinking – the underlying approach to large-scale problem solving that is the foundation of the GSB EMBA – is synergistic with the way a Cape Town-based company has evolved its strategy for design thinking and product development.

Richard Perez, operations director of ...XYZ Design and current Executive MBA student at the UCT GSB, says that being involved in design management and strategy ...XYZ Design grapples daily with the complexity of the design process from ever-changing client requirements through to manufacture of the end product. Formed in 1999, ...XYZ Design is a product design company and a frequent winner of awards for design excellence.

"As I progress with the EMBA course I find similarities between the techniques we use in our product design process and the value of the tools that the course teaches."

He says that the key similarity is the need for a holistic approach – the need to engage with clients to understand their expectations and perspectives of what product or process they want to evolve in order to address their organisational or market need, asking the right questions and, most importantly, always being mindful that nothing works in isolation.

All the elements required for the successful

development of a product need to be considered as a whole, concentrating on a single part alone would never bring success.

"Over the past ten years our process of working with major clients to clarify their brand essence, understand their markets, explore their product ideas, manage the risk of innovation and ensure value-add to the bottom line, our approach to systems thinking has repeatedly proven itself in the field.

"In a nutshell, systems thinking explores the linkages and interactions between components in a complex process within a given context to come up with a solution to a problem or a refinement in a procedure. All of this with an eye on improvements to the bottom line."

Perez says that in South Africa there is an extra dimension to systems thinking that is perhaps not top-of-mind amongst those working in the northern hemisphere.

"We operate in an emergent market where the perceptions of product functionality hold far more value than product aesthetics. Our infrastructure is limited. There is high unemployment, inadequate levels of skill and a multi-lingual and cultural environment.

"Our clients are unlikely to have the budgets or access to funding that true innovation demands. We have a dual economy where inadequate manufacturing skills and economies of scale must be factored into the systems thinking process."

Systems thinking enables the business to identify the difficulties of operating in such an environment, he says. But the edge this dynamic environment brings is innovation and managed risk-taking.

As an example of such a success Perez cites

the globally marketed Snuza Baby Monitor, that ...XYZ designed in collaboration with their client and which is being developed in South Africa. The design was such that it needed to be tooled in China and Singapore with specialised polymer imported from North America. Tooling is then shipped back to South Africa so that production can be managed locally.

"The success of a global project such as this can be attributed to systems thinking where, very early on in the process, there is a need to understand the interaction of all the elements such as the development teams, the marketing teams, the toolmakers, the production facilities, the assembly facilities and, most importantly, the ever-changing expectation of the end user.

"All too often products are developed where emphasis is given to only one element and, inevitably, the product ends up over budget or does not even meet the full requirements of the end user."

Perez stresses that in South Africa we are challenged to consider new approaches because what has evolved in places where stability and proven process have reigned for decades is inadequate in our environment.

"Because of budget and time constraints there is constant pressure to get the development process right with as few iterations as possible. And we must ensure that we are always delivering value to a client's investment," he says.

"A systems thinking approach and tools are there to keep the vision and purpose of the process from de-railing, ensuring that at any given time all components are being considered."