TECHNICAL PROGRAMME FOR MANAGEMENT DEVELOPMENT (TPMD)

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BACKGROUND

The Technical Programme for Management Development (with specialisation in Technology and Business Management) (TPMD) is presented through the NWU Business School at North-West University (NWU) in conjunction with the Institute for Technology Strategy and Innovation (ITSI). The programme aims to equip participants with knowledge and skills to enable them to manage the relationship between the technical and technology environments on the one side and customers, shareholder value creation and return on investment (ROI) on the other.

It is designed for current and future leaders within the organisation and aims to create an understanding of the dynamics between the business environment and the integration of technology and the role the latter plays in terms of taking the business forward through interaction with customers, both internal and external.

The programme therefore focuses on enterprise issues such as finance, marketing and customers as well as technology and architectural issues. Participants will integrate the learnings and prepare an Action Learning Project (ALP) to be submitted.

OUTCOMES OF THE PROGRAMME

The programme outcomes are defined around the two core areas of (i) Technology and (ii) Enterprise (Business). The specific outcomes of the programme are the following:

1. Understand the ICT business environment in terms of the forces and dynamics that play a role in this environment.
2. Analyse and manage the enterprise through applying sound management and leadership principles.
3. Facilitate an in-depth understanding of the critical linkages between technology and management.
4. Equip managers to be change agents in implementing technology and managing innovation.
5. Empower managers with the tools required for the effective management of technology.
6. Understand the key differences between traditional business management and technology management, and the impact it has on business models and value chains.
7. Obtain insights in the use of the ITIL and TOGAF frameworks in order to manage the design, planning, implementation, and governance of an enterprise information technology architecture.

MODULES DEFINED AND DEBRIEFED

The different modules in sequential order are listed below. These modules are context as well as content driven. Experts from the academic environment as well as from industry are used to present and facilitate the sessions.

Module Name
Orientation (1 day)
Dynamics and forces in the ICT environment (1/2 day)
The Technological Playing Field (1/2 day)
Business Planning-The Process (1 day)
Finance for Non-Financial Managers (2 days)
Managing the ICT Customer (1 day)
Business Models in the ICT Environment (1 day)
Innovation Management (1 day)
New Product Development (1 day)
Introduction to Information and Communication Technology (ICT) (1 day)
The Digital Value Chain (1 day)
COBIT and Introduction to TOGAF (1 day)
Action Learning Project (2 days)

A short description of each of the modules and its outcomes are given below:

Section A: ICT Dynamics and Drivers

Description:

In this section the participants are oriented and given an introduction into:

- Dynamics and forces in the ICT environment

- The Technological Playing Field; and

TPMD 101: Dynamics and forces in the ICT Environment

The participants will be able to:

- Display a deeper knowledge of Convergence and the impact this will have on the marketplace.

- Explain the concept of Technology that enables Disruptive Innovation.

- Explore future disruptions by making use of the Five Change Dimensions model.

- Explain the impact on the ICT environment if the trends that were highlighted are taken into consideration.

- Display a deeper knowledge of the Competitor activity and how to respond to them.

- Discuss the most important challengers in the ICT field.

- Discuss Competitor activity and how you should to respond to them.

- Discuss the business models that your competitors may embrace to disrupt the current status quo.

TPMD 102: The Technological Playing Field

The participants will be able to:

- Discuss the design philosophy of the Internet and how that impacts the world as we know it.

- Demonstrate knowledge and insight into the changes that are being undergone due to the abundance of processing power, storage space and bandwidth.

- Apply the perspectives of abundance and scarcity on new business opportunities.

- Understand and discuss the economic understanding of abundances and scarcities.

- Explain the impact that an abundance of processing power, storage space and bandwidth will have on new business models.

- Demonstrate knowledge and insight regarding the difference between the intelligent and dumb networks.

- Explain why the seven layers of the OSI model will collapse into the 4 layers of the IP model (according to Gilder).

- Discuss the new ecosystem in a world of bandwidth abundance.

- Analyse the challenges that traditional ICT companies will face in this new paradigm.

- Discuss the opportunity of home automation, M2M and Bid Data.

- Discuss new applications that might appear on the Internet in the near future.

- Discuss the implications of the era of transparency.

Section B: Enterprise Management

Description:

In this section the participants will be exposed to the following:

Finance for non-Financial Managers

Managing the ICT customer

TPMD 201: Finance for non-Financial Managers

The participants will be able to:

- Understand the language of finance and be able to engage with financial professionals inside and outside the company.
- Explain the main purpose of Financial Reporting.
- Outline fundamental concepts underlying all financial reporting.
- Examine the financial health of the specific business unit and collaborate on resolutions to improve financial performance.
- Interpret key non-financial performance measures.
- Identify financial management cycles and systems e.g. budgets.
- Understand the legislation related to financial management.
- Interpret financial statements.
- Interpret basic bookkeeping and accounting systems.
- Identify risk management within the organisation.
- Explain balance sheets, income statements, cash flow statements and accounting policies.
- Do financial ratio analysis.
- Understand costing and measures of performance including EBITDA, ROE, RONA and EVA(r).
- Develop the ability to construct a financial plan and establish its financial feasibility.
- Identify the main users of financial information and their needs.
- Prepare and interpret a cost-volume-profit (CVP) graph.
- Compute the break-even point.
- Understand present value concepts and the use of present value tables.
- Understand cost of capital.
- Understand different valuing methods to rank projects.

TPMD 202: Managing the ICT Customer

The participants will be able to:

▶ Identify ways of getting and keeping the right customers.

▶ Understand the concepts of customer lifetime value and how to use it.

▶ Motivate employees to understand the personal benefit they will derive from focusing on customer relationship.

▶ Benchmark your performance against those who are successful at establishing and maintaining profitable relationships.

Section C: ICT Management

Description:

In this section the participants will be exposed to the following:

■ Business Models in the ICT Environment

■ The Digital Value Chain

■ Introduction to Telecommunications

■ ITIL and Introduction to TOGAF

TPMD 301: Business Models in the ICT Environment

The participants will be able to:

▶ Explain the structuring of the Digital Value Chain.

▶ Discuss the strategic positioning of various organisations within the Digital Value Chain.

▶ Apply the perspectives of gorilla and king games in analysing a company's position in the value chain.

▶ Explain the different network evaluation methodologies.

▶ Analyse and explain the differences between different business models.
  ✚ Traditional ICT business models
  ✚ Different business models in a Converged Environment
  ✚ Local Loop Unbundling Strategies
  ✚ VOIP provider business model
  ✚ Application Service Provider Business model
  ✚ Triple Play & IPTV Strategies

M2M strategies

Big Data developments

TPMD 302: The Digital Value Chain

The participants will be able to:

▶ Understand the Digital Value Chain concepts.

▶ Discuss the ICT Value Chain.

▶ Discuss the Wireless Value Chain.

▶ Discuss Value Chain functions in the ICT industry structure.

▶ Explain disruptive innovation.

▶ Explain customer-centric networks.

▶ Discuss possible needs that drive customers.

▶ Discuss the importance of understanding your customer.

▶ Discuss the Best Practice Operations Framework.

TPMD 303: Introduction to Information and Communication Technology (ICT)

The participants will be able to:

▶ Understand optimised management of servers, hardware and software.

▶ Get a sense of the terminology used in the ICT and Telecommunications environment.

▶ Understand terminology associated with Cloud Computing.

▶ Discuss Managed Services technologies and applications.

▶ Discuss the dilemma between Managed Services and in-house IT management.

▶ Manage real and virtual server architecture.

▶ Understand security and firewall access.

▶ Understand the various VoIP technology solutions.

▶ Understand optimal disaster recovery.

▶ Discuss synchronisation between live server and disaster recovery.

▶ Understand source control management.

TPMD 304: COBIT and Introduction to TOGAF

The participants will be able to:

▶ Apply the principles of COBIT to optimize the cost of IT services and technology.

▶ Understand how quality information support enterprise decisions.

▶ Be sensitive to the enterprise benefits through the effective and innovative use of IT.

▶ Achieve operational excellence through reliable, efficient application of technology.

▶ Understand the regulatory environment (relevant laws, regulations, contractual agreements and policies).

▶ Describe the enterprise processes required by a service provider to be operational efficient.

▶ Analyse these processes to different levels of detail and prioritise that according to the DiData business model.

▶ Understand TOGAF as a tool for designing the right architecture for the business.

▶ Discuss the 3 components of TOGAF being -
  o The TOGAF Architecture Development Method
  o The Enterprise Continuum
  o The TOGAF Resource Base

Section D: Technology and Innovation Management

Description:

In this section the participants will be exposed to the following:

■ Innovation Management

■ New Product Development

TPMD 401: Innovation Management

The participants will be able to:

▶ Understand the difference between the different types of innovation.

▶ Use the Value Discipline framework of OE, CI & PL to categorise innovation imperatives.

▶ Explain the conceptual differences in managing different types of innovation.

▶ Appreciate the Signals of Change in an opportunity-filled world.

▶ Understand which strategic choices to make.

▶ Appreciate the Factors affecting innovation.

▶   Contribute to the debate on the future of the ICT environment.

TPMD 402: New Product Development

The participants will be able to:

▶   Describe the various Corporate Value Chain funding tools and the impact it will have on business plans.

▶   Understand new perspectives on the strategies and companies that played leading roles in shaping new competitive landscapes.

▶   Understand the tools that can be used to alter the competitive landscape.

▶   Describe actions plans which will adapt the implementation strategy of a new product or technology to the key challenges posed by the various stages of the Technology Adoption Life Cycle.

▶   Understand the New Product Development Map.

General Section

Description:

In this section the participants will be exposed to the following:

■ Business Planning – The Process

TPMD 503: Business Planning – The Process

The participants will be able to:

▶   Discuss Innovation, entrepreneurship and change.

▶   Get insights into introducing the Business and its Management.

▶   Define Products and Services.

▶   Assess the Market.

▶   Develop a Marketing Plan.

▶   Manage Sales and Distribution.

▶   Align technology with the Enterprise Architecture.

▶   Determine Financing Requirements.

▶   Consider Key Financial Data and Financial Projections.

▶   Develop a competitive Business Strategy.

▶   Manage technology.

▶ Populate the resources map.

▶ Integrate all the above into an executable Business Plan.

ASSESSMENT

The assessment framework of the TPMD is built around the following:

❖ Individual and group assignments to assess the understanding of the key concepts and that will be relevant to the applicant's functional environment.
❖ A theoretical examination.
❖ An Action Learning Project (ALP) which will result in a Business Case presentation to an esteemed panel. A one-day intervention on Business Planning will be done to inform this process.
❖ Peer-to-peer assessment is conducted in the contact sessions and is facilitated by the presenter/facilitator. Reflection is done to ensure an understanding of the knowledge areas that are covered.

DURATION AND STATUS

The programme consists of 14 contact days (12 facilitated days and 2 days for the Action Learning Project) and will be presented over a period of ± 6 to 9 months i.e. 2 days per month plus assessments. This Short Learning Programme is registered with NWU with 500 notional hours.

DELIVERY METHODOLOGY

The principle of customisation is taken into account with the development of this programme customising the learning interventions to the level of the target group and also to the outcomes to be achieved. One of the critical attitudes for success is one's relation to learning and development. Interventions with the correct emphasis on the relationship between Knowledge, Skills and Mindsets were therefore constructed. All interventions are based on constructivist learning, accommodating multiple intelligences. This briefly means experiential learning and development with an emphasis also on peer-to-peer assistance and evaluation. Facilitator and expert intervention is central to the process for guidance and outcomes purposes.

Most, if not all, of the interventions will be delivered through physical contact sessions of contact blocks. Where circumstances dictate and technology is available, delivery via video conferencing might take place.

Each of the modules will have a complete study guide. In some of the instances textbooks will also be supplied as well as relevant articles.

CONCLUSION

The purpose of this document is to give a brief summary of the sections and modules that constitute the programme. The most important characteristic of this programme is that the knowledge transferred to the students is of such a nature that it can be practically applied. Although the programme encapsulates the latest thinking, both in a technology and management sense, the content of each of the modules is both practical and immediately implementable within the organisation. The facilitators on this programme have extensive experience in the academic world as well as in the ICT environment and will therefore convey the content in such a way that the participants do not experience any gap between the reality they face every day and the content within the course.