Thought leadership

Banking Multi-dimensional profitability model

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Contents

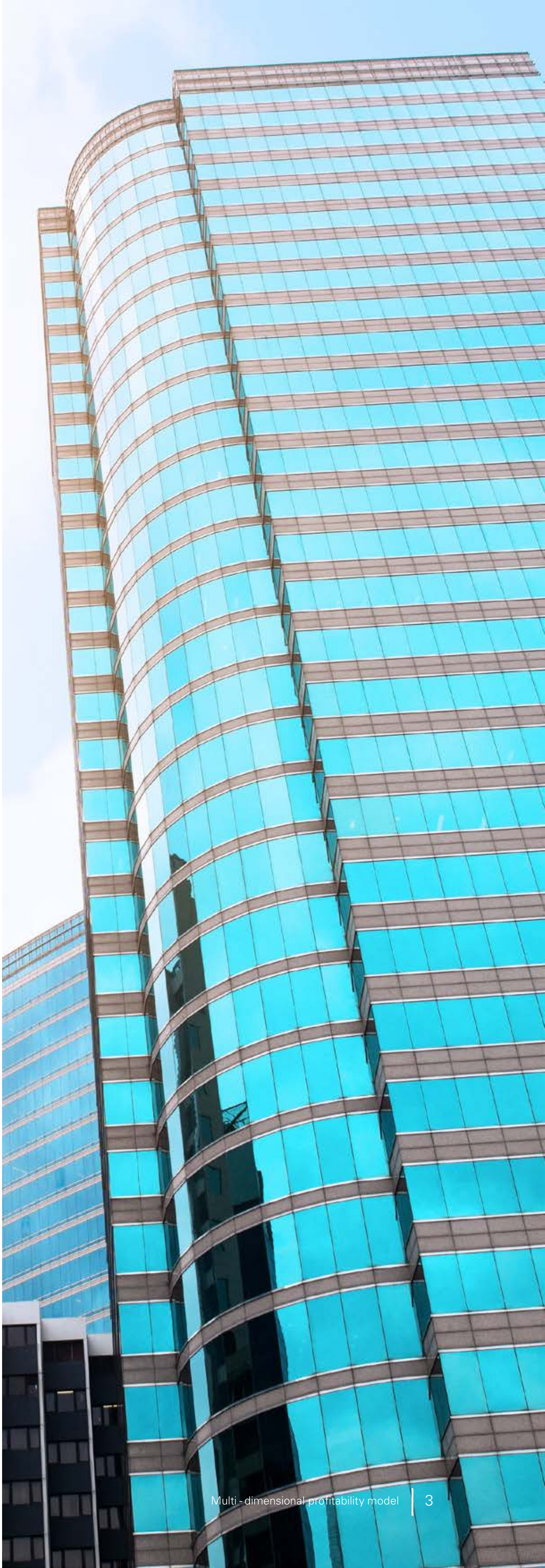
Introduction

In order to make informed decisions in today's highly competitive and volatile banking business environment, it is critical to have rich and relevant information on the true profitability of your business.

Over the years, many practices have been developed to analyze banking profitability. In most cases, the profitability of a product or service is often simply measured via arbitrary cost allocations. Such methodologies do not coherently align strategic intent, value and profitability in a holistic manner. The Multi-dimensional Profitability Model ("MDP") addresses these shortcomings.

While cost allocation is a well-established concept, the MDP analysis offers a structured approach to replicating value drivers as a means of allocation for pooled revenue. By aggregating the two elements of cost and revenue a comprehensive dimensional profitability analysis can be formed.

In this paper, we will discuss our viewpoints on the development of an MDP model.



Insights around the market

Banks provide a broad range of products and services via multiple sales channels to a diverse mix of customers.

In our experience of working in the local banking environment, we have observed that many banks do not have a clear view of their profitability. Which, of course, leads to uninformed decision-making. Typical examples include:

- Customers with higher revenue or sales volumes are assumed to contribute more to the bottom-line and therefore attract more marketing investment, sales investment and greater discounts.
- Digital channels are assumed to be less expensive than traditional branch or telesales channel therefore attract more investment.
- Product portfolios are often expanded based on a desire to provide a greater range to customers, without understanding the impact on profitability.
- Process improvements are based on management opinion rather than cost optimization potential.
- Pricing is set in response to the market without understanding product costs.

"I don't know which are my most profitable products?"

Head of Corporate Banking Division

Small size commercial bank

"What are the appropriate drivers for my digital banking activities?"

CFO
Medium size commercial bank

"We don't know how effective our business are at the granular level, the insights we have just don't help us develop a relevant strategy"

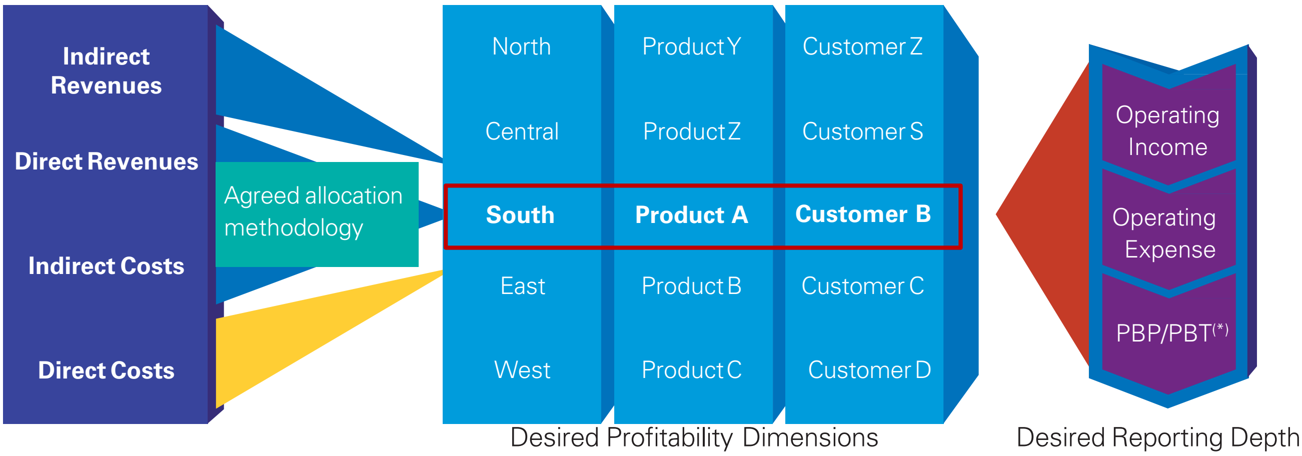
CEO
Medium size commercial bank

"Our cost allocation mechanism is cumbersome with hundreds of drivers"

CFO
Large size commercial bank

What is MDP all about?

To understand the true cost and profitability of a bank's businesses, it is important to have a clear and consistent view across multiple dimensions such as: geography; products; customers; etc. The clear view into each of these dimensions provide actionable insights that are crucial if business leaders are to make informed decisions and effectively drive business growth. For example: What are the most profitable products? Are we making the most out of a particular customer segment? etc.



Many of our clients currently use allocation methods that take into account all or some of the following criteria by which to allocate their shared cost base.

1. Full time Equivalents ("FTE")
2. Revenue
   - At business level – Corporate banking, Retail banking, Treasury, Digital banking
   - Branch level
3. Equally share
4. Outstanding balance
5. Number of transactions
6. Management discretion

While a lot can be learnt from these existing methods, the MDP model has been developed with a unique dimensional approach to allocate costs from the back-end departments of a bank to the front-end, revenue generating departments. This holistic approach provides a much more accurate approach to determining the true profitability of an individual product, service or sales channel.

(*) PBP: Profit before provision

PBT: Profit before tax

Why do we need MDP?

Traditionally, the allocation of costs is conducted in an arbitrary manner and is used for budget management purpose instead of being used as an effective tool to optimize business performance. Often this arbitrary approach involves defining cost drivers for all activities (e.g. reporting, analyzing, etc.) thus making the process overly complex.

The allocation of cost and revenue is never a precise exercise. It should be based on assumption and discussion with the transparency of the process being clear.

The MDP model with its driver based approach provides a more accurate and informed picture, linking activities performed with the costs incurred and income generated from them. This in turn helps to provide insight around cost optimization and revenue efficiency.

The MDP model not only provides insight into the true value drivers of the business, but also yields rich and relevant information on profitability at Product, Customer, and Sales channel level. This capability enables business leaders to make more informed decisions, such as tailoring offerings, setting competitive prices for profitable customer segments, discontinuing unprofitable products, and operating in new channels or markets.

How do we analyze and build an MDP model?

At KPMG, we believe that a successful MDP model is built based on the following analytical dimensions (refer to Figure 1: Analytic dimensions)

- General ledger
- Functional structure
- Value chain
- Dimension

In particular, the General ledger is scrutinized to identify the various kinds of incomes and expenses, which can then be allocated on a departmental basis. Getting control over the general ledger is critical for a profitability-analysis solution, as it is essential to have a functional structure and responsibilities clearly identified in it that can enable calculation of the costs to serve and respective value generated.

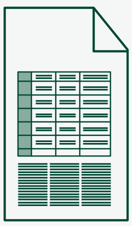
This organization-wide structure is then broken down into 4 blocks: Commercial (directly generated revenue departments); Back office (departments directly supporting Commercial departments in running day-to-day business operation); Structure (management & governance departments); Support (departments providing general fundamental services to all other blocks).

Incomes & expenses are allocated internally for these functions as well as among these blocks based on a pre-defined order and drivers. At this stage, a value-driver tree (KPMG's specialized matrix facilitating the incorporation of every dimension components' value chain as well as the aforementioned department-wide cost structures), will be prepared. The MDP allocation mechanism will mostly be executed based on principles listed in these value driver trees.

Upon the completion of the incomes and expenses allocation, a value chain will be defined for each of the dimension components to facilitate determination of income/ expense items associated with generating the respective bottom-line. The profitability reports for agreed dimensions will mostly be developed based on the established value chains.

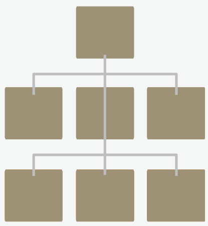
Figure 1: Analytic dimensions

General ledger



General Ledger ("GL") is scrutinized to identify revenue and expense at overall level

Functional Structure



Break down the organization wide structure into 4 levers

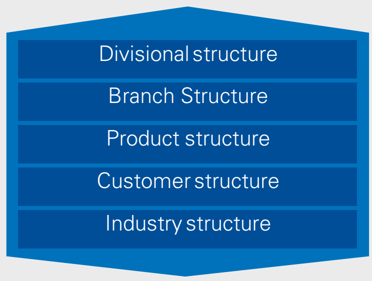
- Commercial
- Back office
- Structure
- Support

Value chain

Value chain is prepared at various levels

- Line of Business ("LoB")
- Business Unit ("BU")
- Product

Dimension



MDP model are developed based on the following dimensions

- Line of Business ("LoB")
- Business Unit ("BU")
- Product
- Customer
- Industry

Allocation mechanism

Cost allocation

Although profitability management comprises both the revenue and costs aspect of the business, there is usually a strong focus on cost management, particularly indirect costs. Indirect costs are costs that are not directly associated with production and sales of product or service.

At KPMG, we believe a driver-based approach is the best way to appropriately allocate cost from the back-end departments of a bank to the front-end, revenue generating departments. Driver-based costing allows banks to improve their expense measurement by aligning these costs to associated revenues by product, customer or sales channel.

In the driver-based approach, overhead costs are first related to department cost centers. A value driver tree, KPMG's specialized matrix facilitating the incorporation of every dimension components' value chain, will then be created for all cost heads and an allocation mechanism defined.

Cost heads are getting allocated from Support division to Structure, Back office and Commercials. All direct costs of Structure and Back office, together with allocated costs from Support in turn be further allocated to Commercials respectively. Commercials are the final division to bear all incomes and expenses items in order to form the profit & loss for agreed dimensions.

Revenue allocation

Allocating revenues to business is a fairly straightforward process. It is usually clear which product was sold to which customer, and can be counted as revenue in a particular period. It is noted that a profit center needs to be created to house the revenue generated.

For those revenues that are not generated specifically by any businesses (e.g disposals of HO fixed assets), they can then be further allocated using simple proxy approach, where typically a discretionary percentage decided by Management.

Drivers

In order for clarity and simplicity, the number of drivers should be limited. There are usually 3 types of drivers used in our approach (refer to Figure 2: Typical Cost/Income drivers)

- Direct attribution
- Volume-based attribution
- Blended-rate allocation

Direct attribution is used for those Costs/Income that have a clear relationship to the profitability dimensions (e.g., business units, products, customers, etc.) and are incurred solely for the purpose of those dimensions. There is no calculation required for this kind of driver, and cost/income is directly routed to the front-end.

Volume-based allocation is used for a shared cost base which is to be attributed at various parameters using drivers such as number of transactions processed. Calculation is required to work out unit costs for transactions, and the allocation is derived by multiplying unit cost with respective volumes.

Blended-rate allocation is used for a shared cost base which is not directly affected by volume. Blended-rate typically includes FTE, Revenue and Balance with a percentage allocation for each calculated.

Figure 2: Typical Cost/Income drivers

Cost/Income drivers methodology		
Direct attribution	**Volume-based attribution**	**Blended-rate allocation**
Costs/Income have a clear relationship to the profitability dimensions (e.g., business units, products, customers, BU) and are incurred solely for the purpose of those dimensions	Shared cost which is to be distributed at various parameters using drivers such as Revenue LOB, Revenue BU and Number of FTE for equitable distribution of cost	Shared cost which is not directly affected by volume. Blended-rate typically includes FTE, Revenue, Balance
No calculation required and cost/ Income is directly allocated	Calculation is required. Rate x Volume	Calculation is required. Percentage-based allocation

Typical dimensions considered for MDP

Business dimensions are the core components or categories of a business, that management wishes to analyze. One of the most important factors in building up a proper MDP model is having a shared understanding of the key dimensions that the bank considers crucial to managing strategic growth. These business dimensions, together with other factors (e.g data availability, level of granularity, etc.) are fundamental to analyzing and building up MDP model.

In our experience, the preferred approach for banks is to use the dimensions of Product, Customer Segment, Lines of Business & Business Unit; and on occasion, Sales channel and Industry (refer to Figure 3: Typical dimensions)

Figure 3: Typical dimensions

Dimension	Analysis object				Application
Line of Business	Retail	Corporate	Treasury		– Support performance evaluation by profitability information of each line of business
Product	Deposit	Loan	Credit Card	Foreign Exchange	– Support product design based on profitability analysis – Support pricing strategy through decision making about interest rate, fees
	Bill discount	Guarantee	Fixed income	Derivatives	
Channel	Branch network	Internet Banking	Mobile Banking	Direct sales	– Suggest the direction of advanced strategy for profitability improvement as measuring profitability on Channel
Customer	HNW	Affluent	MME	SME	– Collect customer profitability data to support sales marketing – Support to decide interests rate or fees based on profitability of each customer

What benefits can MDP give us?

The MDP model with its driver based approach can provide a more accurate and informed picture, linking activities performed with costs incurred and income generated from them. This in turn helps to rapidly provide insight around cost efficiency and profitability optimization

A. Support in financial planning and analysis process

KPMG believes that banks need to embed driver-based cost allocation during the course of their financial planning process. Banks would benefit from identifying the optimized level of costs incurred (for predefined revenue target) before they actually occur. In particular, the driver-based cost allocation facilitates the conversation between back-end departments (i.e service provider) and front-end businesses (i.e recipient) whereby the service provider is responsible for charged rate and recipient is responsible for transactions volume.

B. Promote transparence and actionable insights on cost allocation process

The clearly defined roles and responsibilities of both the service provider and the recipient bring more transparency to the cost allocation process and hence save effort in clarifying the cost charge.

C. Support cost optimization / cost analytics at dimensional level

MDP enhances cost management at a dimensional level. The model allows the bank to understand their true cost and profitability across the most important business dimensions. As a result, it helps to identify opportunities for cost optimization instead of spending time in reporting and investigating the cost charge.

KPMG approach to MDP development

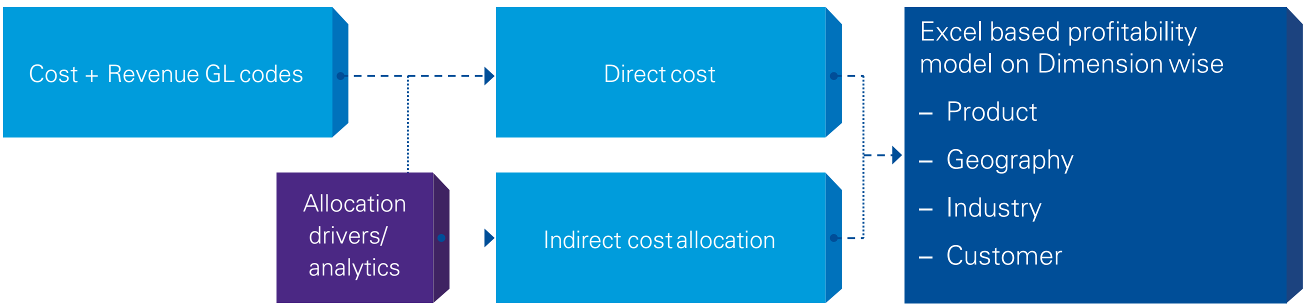
We suggest applying a staged approach to developing the MDP model.

The first step is to baseline how the existing businesses of the bank are managed. This is best achieved through an in-depth analysis of the banks operating model, strategic objectives and internal and external challenges.

The second step is to study how current Cost and Revenue GLs are aligned in terms of their architecture. After understanding this, drivers are assigned to each GL code, and analytics are performed for allocation of cost and revenue.

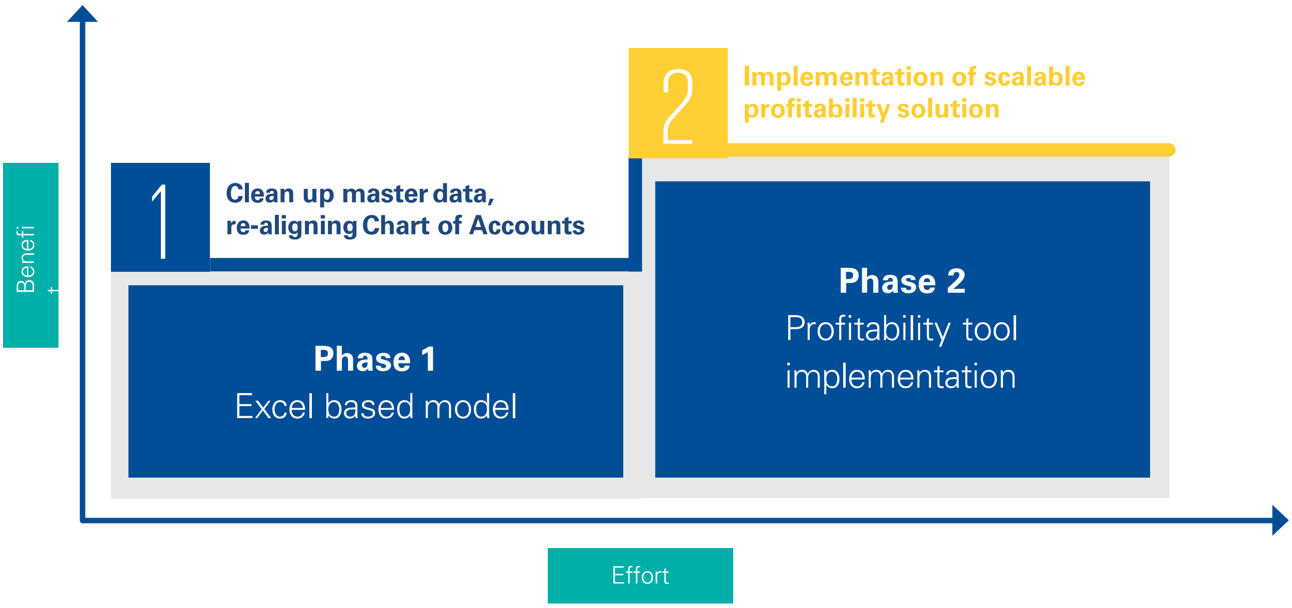
Next step is to design and run a proof-of-concept model (OR "testing model") using a simple, easy to use platform, (e.g Excel-based model). This will allow for demonstration and validation of the model by leadership before undertaking final development. (refer to Figure 4: Typical MDP value chain)

Figure 4: Typical MDP value chain



During the proof-of-concept phase 1, any data quality and cost transparency issues will be identified, documented and resolved before proceeding to stage 2 – development of the profitability tool. (refer to Figure 5: Phases for MDP model)

Figure 5: Phases for MDP model



At the end of phase 2, the MDP model will be fully implemented and incorporated into the Bank systems with an appropriate Profitability Management software solution. It is critical at this stage that any outstanding data quality issues are identified and fixed. Once financial data and all related processes are aligned, leadership can extract informative reports for effective decision making.

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