Fakultät für Wirtschaftswissenschaften

Technische Universität München

The **Chair of Operations Management** of **TUM School of Management**, **Infineon Technologies AG**, and **BSH Hausgeräte GmbH** are looking for an interested and qualified student to conduct his/her

Internship followed by a Master Thesis (2x)

on the topic

Supply Chain Segmentation

Description:

The focus of the two theses is segmentation. Segmentation is developing distinct supply chains which are able to more efficiently and profitably meet a wide range of customer needs. Segmentation provides enough flexibility to handle all the market conditions and customer requirements in a joined up single method.

Infineon Technologies AG is Europe's second-largest semiconductor manufacturer that develops semiconductors and systems for automotive, industrial and multimarket sectors, chip card, and security products. Their products are developed to make life easier, safer and greener with technology that achieves more, consumes less, and is accessible to everyone.

BSH Hausgeräte GmbH (BSH) is the largest manufacturer of home appliances in Europe and one of the leading companies in the sector worldwide. The company develops home appliances that are charac-terized by intelligent design, user-friendliness and energy efficiency. Improving the consumer's quality of life is what determines the company's activities: home appliances should make life easier.

Both **internships** should investigate the supply chain segmentation process. Based on that, two master theses should develop an approach to cluster the different products and/or customers taking into account attributes, manufacturing and supply capabilities and business value of the company in order to provide the most profitable supply chain.

Implementation of a simulation-based model to segment Infineon´s product portfolio
The **first thesis** (located at Infineon in Neubiberg) focusses on the implementation of a current segmentation framework to Infineon´s portfolio using a simulation-based model:

- Collection, preparation and analysis of data from selected products and customers
- Implementation of the analyzed data as input in the current segmentation approach to cluster the products and customers.
- Definition of a systematical approach to segment the whole portfolio of products

Development of a segmentation approach for BSH
The **second, complementary thesis** (located at BSH in Neuperlach-Süd) should concentrate on the development of a suitable segmentation framework:

- Extensive literature research on state-of-the-art approaches to segment supply chains
- Identification of factors that are of highest relevance for determining product delivery strategies in general and for BSH in particular
- Perform numerical experiments to investigate the performance of different product delivery strategies for different segments.

One student would be attached to Infineon and one would be attached to BSH.

Requirements:

This thesis is suitable for **TUM-BWL**, **TUM-WITEC** or **TUM-WIN** students with a major in the area of operations and supply chain management (OSCM). Candidates must have a strong analytical background, be able to work independently and must show absolute reliability. Very good MS-Office skills (Word, Excel, PowerPoint) are mandatory. The student for the first thesis must have a first-hand experience in simulation.

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The thesis has to be conducted in **English**. During this thesis part-time employment with Infineon Technologies AG and/or BSH Hausgeräte GmbH is provided.

A signed Non Disclosure Agreement (**NDA**) among the parties will be in place in order to protect the release of sensitive data from both companies.

Begin:	November 2016
Advisor (TUM):	Alexander Döge
Mentor (Infineon):	Hans Ehm
Mentor (BSH):	Bernhard Czap

Any interested student, please send by email your application together with your curriculum vitae and transcripts of records to **Alexander Döge** (alexander.doege@tum.de).