INTERNATIONAL PRICING STRATEGIES OF HIGH-TECH START-UP FIRMS

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Abstract

Purpose: This paper aims to understand how high-tech start-up firms from small and open economies develop and optimise their international pricing strategies and models. The paper proposes modelling a pricing strategy process and outlining why and how leadership is important throughout the pricing process. The study aims to expand the study of international entrepreneurship and global firms by including a broader and deeper range of pricing aspects than is normally found in the international entrepreneurship and pricing literature.

Design/methodology/approach: The paper opted for a multiple case-study research design using different sources of evidence, including four in-depth interviews with CEOs of high-tech start-up firms. The case-study firms were selected using a purposive selection method. The interviews were conducted in December 2016 at the corporate headquarters of companies. The data was analysed using grounded theory to develop categories and to understand consistencies and differences. The theoretical framework of Ingenbleek, Frambach & Verhallen (2013) is used to analyse the pricing strategies of the case study firms.

Findings: The paper provides empirical insights about how high-tech start-up firms from small and open economies develop and optimise their international price-setting strategies and models. It suggests that successful leaders act as 'integrating forces' on two levels: by applying a structured and disciplined price-setting process with regular reviews and by mediating between corporate financial goals and the local market reality.

Research/practical implications: The results are relevant for researchers and policy makers who support activities that promote engagement into entrepreneurial activity. The results support that claim that policy makers should offer insights, training and financial support to give promising high-tech start-up firms the possibility to select the most efficient international pricing models and strategies. The results are relevant for entrepreneurs to understand the importance of efficient price-modelling processes, including regular price reviews, and the influence of the different price strategies and price models on financial results and sales revenues.

Originality/value: This paper fulfils an identified need to study how high-tech start-up firms from small and open economies develop and optimise their international pricing strategies and models.

Keywords: Price model, International pricing strategy, Born global, High-tech firm

JEL Codes: M00, M10, M31

Introduction

There is a need for companies to understand and optimise their pricing strategies. Price-setting helps determine a company's profit margin as well as market share, the ease with which sales are made, or the difficulty in gaining adoption of a product or service. It is perceived as a profit opportunity invitation to future competition and a territorial grab to existing competitors. Simon (2015) showed in his global pricing study with more than 2,186 companies from 40 countries that 87% of companies plan to improve their pricings strategies, practices and methods due to decreasing pricing power and increasing pricing pressure. The need to develop and implement the right pricing strategy is especially important for high-tech start-up firms from small, high-cost countries like Switzerland (Neubert, 2016a). Due to the characteristics of their home market, they have to internationalise early and fast (Neubert, 2016b), which increases the complexity of pricing decisions for new product innovations (Ingenbleek, Frambach, & Verhallen, 2013).

The purpose of this study is to identify various international price-setting strategies, practices and models used in real-world companies. From this selection, a comparison can be made of their relative strengths and proper implementations. The research problem is that international pricing decisions are more complex than domestic ones and frequently incur currency value swings, different inflationary pressures and difficulties in having production facilities in different markets, which leads to frequent price reviews (Hollensen, 2014).

This study has been performed in part by the call for research from Ingenbleek et al. (2013). In their paper, they call for further research on existing pricing processes with the intent of applying them towards an optimal application for new product development in foreign markets. Thereto, it is suggested that this need should be addressed through qualitative research methods, such as multiple case-study research.

1 Literature Review and Theoretical Framework

This multiple case-study approach uses the framework of Ingenbleek et al. (2013). According to their research, managers base their pricing decisions in foreign markets on an extensive analysis of internal and external information (Neubert, 2013,) which includes their production cost, the competition and the value they are producing for the user. These decisions are regularly reviewed in order to prepare for and mitigate disturbances caused by changes in foreign competition, currency exchange fluctuation and inflationary pressures (Snieskiene and Cibinskiene, 2015). Due to missing access to relevant market information (Iyer, G. R., Xiao, S.

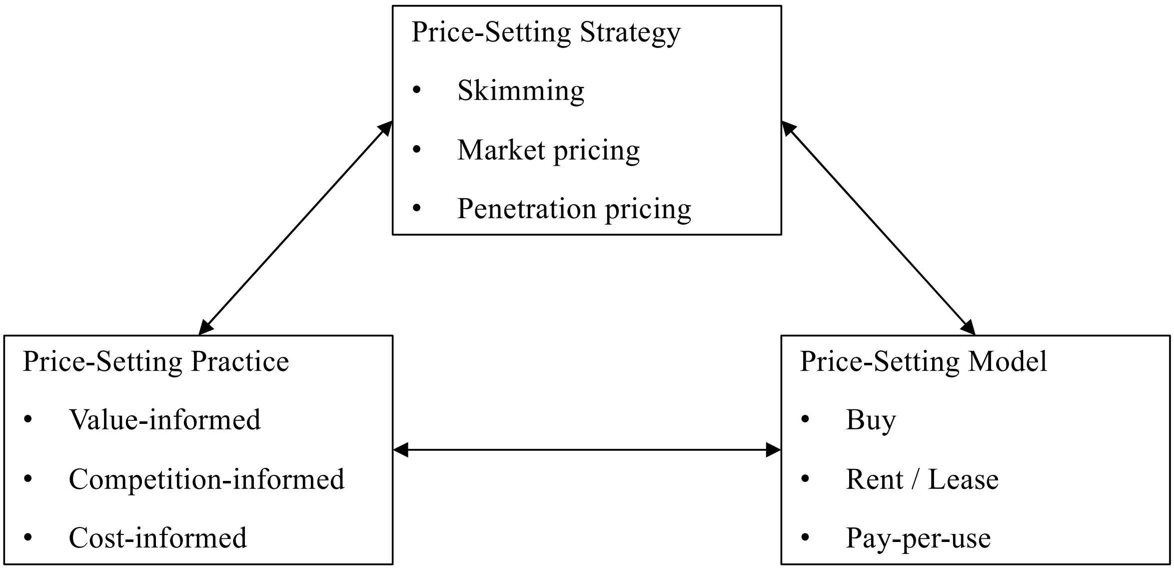
H., Sharma, A., & Nicholson, M., 2015), there is a tendency towards suboptimal pricing strategies (Iyer et al., 2015) and underpricing (Ingenbleek et al., 2013).

Prices in online markets have been found to change faster than in traditional stores, including a higher pass-through of exchange-rate fluctuations (Gorodnichenko & Talavera, 2016), but online distribution channels greatly increase price transparency, which leads to reduced price differentials between countries and a global standardisation of prices (Gorodnichenko & Talavera, 2016). Thereto, exporting companies have been found to experience greater rates of success depending on the relationships and partnerships formed with importers (Obadia & Stöttinger, 2015). Exporters can increase the performance of their importers (or local distributors) through their pricing strategies, especially by allowing higher margins or other incentive schemes. In response, importers then invest in the products where they can expect the best results, predominantly based on the marketability and the price margin.

The creation of a new product market or niche comes with the significant advantage in that high-tech start-up firms with patented and innovative products have high price-setting power to set the reference price for their new product categories (Copeland & Shapiro, 2015; Geng & Saggi, 2015). This price-setting power might be used to implement price innovations like for example ‘pay-per-use’ or ‘freemium’ in the sharing economy and gaming industry (Simon, 2015). New niche creation has historically come with roughly one to two years of market control before competitor companies can technologically catch up (Lowe and Alpert, 2010). This advantage is substantially decreased in foreign markets that don’t enforce patent protection (Geng & Saggi, 2015).

High-tech start-up firms with patented products mainly opt for a born global strategy (Neubert, 2015) with a focus on one global market niche. In the first years of their existence, they apply a global exporter business model with strong local importers to penetrate their relevant global market quickly (Neubert, 2015). During the start-up phase they have to opt for the best pricing strategy, practices and models with often limited access to relevant information (Neubert, 2016b). Due to high production cost in Switzerland, low synergy and scale effects, they try to maximise their mark-up (Gullstrand, Olofsdotter, & Thede, 2014) and apply a skimming strategy (Hollensen, 2014). Therefore, they try to discriminate between markets and avoid spill-over effects between them.

Fig. 1: Theoretical Framework Based on Ingenbleek et al. (2013)



Source: Ingenbleek et al. (2013)

2 Research Methodology

A multiple case-study research method was used in order to best compare and contrast existing pricing strategies, practices and models (Yin, 2015). In contrast to an experimental design or a survey, a multiple case study has more flexibility, allows an in-depth analysis of a complex research problem within a highly contextualised environment (Yin, 2015), and allows for a comparison between different cases (Yin, 2015).

Data collection is based on different sources of evidence, including four in-depth interviews with subject matter experts (e.g. CEOs, founders of high-tech start-up firms). The interviews with the SMEs were conducted in December 2016 at the corporate headquarters of the case-study firms. The selection of the case study firms was based on a purposive case selection strategy where the typcial cases are selected from a representative sample of high-tech start-up firms.

Tab. 1: Socio-Demographic Profile of Case-Study Firms

Company	**1**	**2**	**3**	**4**
Industry	Nanotechnology	Biotechnology	Semiconductor	Logistics
Incorporation	2012	2009	2008	2008
Location	Switzerland			
Employees	12	58	15	14
IP protection	Patent protection for the core technology			
Strategy	Born Global / Pioneer			
Business Model	Global Exporter			
Products	Physical product (device) plus services and consumables			

The data analysis was based on grounded theory in order to develop patterns and categories and to identify consistencies and differences in the data. Based on the research goals, the data analysis follows a logical sequence, starting with an individual case analysis to develop themes, followed by a cross-case comparison to identify similarities and differences.

The purpose of the study has led to the following two research questions:

1. What are the preceptions of SMEs about the selection of price-setting strategies, practices and models?
2. What are the preceptions of SMEs about why and how the case study firms differ in their selection of price-setting stratgies, practices and models?

3 Findings

The results of this multiple case study are presented in this chapter to answer both research questions individually.

3.1 Selection of Price-setting Strategies, Practices and Models

The analysis of the data collected from the in-depth, semi-structured, qualitative, face-to-face SME interviews revealed the following findings: These findings answer the first research question:

What are the preceptions of SMEs about the selection of price-setting strategies, practices and models?

The case study firms 1, 2 and 3 use a skimming price-setting strategy in their global niche market. They focus on early adopters, which value the competitive advantage these innovative and patent-protected products provide and are willing to pay the respective price.

Case study firm 4 uses a market price-setting strategy with globally standardised prices due to high market transparency and increasing competition from similar solutions. All case-study firms indicate their prices in their home market currency. Despite the price standardisation, end-user prices might vary because of different payment conditions, foreign currency fluctuations, export costs (e.g. logistics, export/import, product registration) and product/market specifications.

Tab. 2: Price-Setting Strategies, Practices and Models of Case-Study Firms

Company	**1**	**2**	**3**	**4**
Price-setting strategies	Skimming Standardisation	Skimming Standardisation	Skimming Standardisation	Market pricing Standardisation
Price-setting practices	Value-informed	Value- and competition-informed	Value-informed	Competition-informed
Price-setting models	Buy	Buy	Buy	Pay-per-use

The choice of the price-setting strategy determines the choice of the price-setting practice and the price-setting model. The price-setting practice is a process of data collection and decision preparation, which leads to a pricing decision (Ingenbleek et al., 2013). Accordingly, the case-study firms 1–3 used predominately value-informed price-setting practices. The SMEs of the case-study firms 1–3 expressed their intention to understand the added value of their products and the willingness to pay of their potential clients but admit that there is a significant risk of over- and underpricing due to missing market data (Iyer et al., 2015; Ingenbleek et al., 2013). Case-study firm 4 mainly focuses on a competition-informed price-setting practice although the added value and the cost are also considered for pricing decisions. All SMEs indicated that they base their pricing decisions on the information received from distribution partners, and to some extent from existing clients, even though they are biassed and don't constitute a representative sample.

The selection of the price-setting model is driven by the price-setting practice and the price-setting strategy. The case study firms 1–3 use a traditional 'buy' pricing model for all products and services. This creates unique and high cashflows whenever a new client is acquired and subsequently recurring revenues from service contracts and consumables. Case study firms 1–3 work with local distributors, which add a mark-up on the prices or receive a commission. Case study firm 4 uses a 'pay-per-use' price-setting model to generate a growing, stable and recurring cashflow. The price includes all service and maintenance costs for the client. Case study firm 4 distributes its products directly to the B2B clients without any intermediaries by using online and personal selling distribution channels.

The main finding of reseach question 1 is that all case study firms have implemented price-setting strategies, which are based on suitable price-setting practices to collect data and to prepare pricing decisions. The selection of the price-setting models is based on the price-setting strategy and practice. The answers to research question 2 identify the reasons why and how price-setting strategies, practices and models differ.

3.2 Differences in the Selection of Price-Setting Strategies, Practices and Models

The analysis of the data collected from the in-depth, semi-structured, qualitative, face-to-face SME interviews revealed the following findings: These findings answer the second research question:

What are the preceptions of SMEs about why and how the case study firms differ in their selection of price-setting stratgies, practices and models?

The first theme is that the price-setting power influences pricing decisions. The differences in the selection of the pricing strategy are based on market competition, inluding the price-setting power of the case-study firms. According to the SMEs, the price-setting power is determined by the patent protection and the perceived value of the product for the client (Copeland & Shapiro, 2015; Geng & Saggi, 2015). Thus, case study firms 1–3 apply a skimming price-setting strategy whereas case study firm 4 selects a market price-setting strategy.

The second aspect is that financial aspects influence pricing decisions. Consequently, SME prefer ‘buy’ pricing models (preferably with pre-payments) to generate immediate cashflows to reduce capital requirements. Recurring revenues, of for example service contracts and consumables, should stabilise the cashflow and reduce the dependence on new business generation. High-tech start-up firms have often no other source of revenues and depend on expensive sources of capital like private equity or venture capital to finance their working capital. Obviously, founders and entrepreneurs try to limit the capital requirements because they want to keep as many shares as possible.

The third theme is that the bargaining power of the local distributor influences pricing decisions. The case study firms 1–3 use a global exporter business model with local distribution partners. These distributors need to be incentivised to sell the products of the exporter. According to the SMEs, the main motivator to increase sales revenues are financial incentives

(Obadia & Stöttinger, 2015), like a commission or a mark-up, which is paid out as soon as the client was acquired. Therefore, our case study firms adapt their price-setting strategies, practices and models to facilitate a successful collaboration and to avoid a prefinancing of acquisition cost.

The fourth theme is that the requirements of clients influence pricing decisions. The choice for a price-setting model is mainly based on client needs. The following example shows how needs of different B2B clients lead to different price-setting models. Academic clients and other government institutions prefer a 'buy' price-setting model, because they only want to apply once for a budget, which should cover the acquisition cost. In constrast to that, industrial clients (B2B) often prefer (e.g. due to financial reasons) a 'pay-per-use' price-setting model to book operating expenses instead of capital expenses.

The fifth theme is that the potential of higher corporate valuation influences pricing decisions. Case study firm 4 has selected a 'pay-per-use' price-setting model because it offers (in a positive scenario) a higher growth potential, stable future sales revenues and lower acquisition costs.

The main finding of reseach question 2 is that price-setting strategies, practices and models differ significantly between the case-study firms for financial and market reasons. Because of the significance and complexity of pricing decisions, the case study firms regularly review their price-setting strategies, practices and models using predefined processes.

Conclusions

This study provides new evidence about the pricing decisions of high-tech start-up firms from small and open economies. It analyses what price-setting strategies, practices and models are used, and why and how the pricing decisions differ. The research method is a multiple case-study research design. Data is collected through SME interviews as a primary source of evidence. Grounded theory is used to analyse the collected data.

The first conclusion is that all case study firms have implemented price-setting strategies, which are connected with suitable price-setting practices. The selection of the price-setting models is based on the price-setting strategy and practice.

The second conclusion is that pricing decisions are based on market requirements and financial needs. Thus, three out of four case study firms selected a traditional 'buy' price-setting model due to the requirements of distributors and clients and the goal to generate cashflow as early and fast as possible.

The last important conclusion is that all SMEs underline the high significance of pricing decisions. This includes the need to implement efficient price-setting processes, strategies, practices and models in the organisation with the intention to review pricing decisions regularly and to react early and fast on new market information.

The results of this study are relevant for researchers and policy makers who support activities promoting engagement in entrepreneurial activity. Such policy makers should offer insights, training and financial support to give promising high-tech start-up firms the possibility to select the most efficient international price-setting models, practices and strategies for foreign export markets. Results are relevant for entrepreneurs to understand the importance of efficient price-setting processes, including regular reviews and the influence of the different price-setting strategies, practices and models on financial results.

This multiple case study research design has several limitations in size and scope that offer new ideas for future research. Future scholarly work might also include quantitative assessments of SME perceptions and that with qualitative data to provide greater clarification of the statistical significance of the variables of this study or to replicate it with other case-study firms form different industries and markets.

References

Copeland, A., Shapiro, A.H. (2015). Price setting and rapid technology adoption: The case of the PC industry. *Review of Economics and Statistics, 98*(3), 601-616.

Gorodnichenko, Y., & Talavera, O. (2017). Price setting in online markets: Basic facts, international comparisons, and cross-border integration. *The American Economic Review*, *107*(1), 249-282.

Gullstrand, J., Olofsdotter, K., & Thede, S. (2014). Markups and export-pricing strategies. *Review of World Economics 150*(2), 221-239.

Hollensen, S. (2014). *Global Marketing* (6th ed.). Harlow, England: Financial Times Prentice Hall.

Ingenbleek, P.T.M., Frambach, R.T., Verhallen, T.M.M. (2013). Best practices for new product pricing: Impact on market performance and price level under different conditions. *Journal of Product Innovation Management, 30*(3), 560-573.

Iyer, G. R., Xiao, S. H., Sharma, A., & Nicholson, M. (2015). Behavioral issues in price setting in business-to-business marketing: A framework for analysis. *Industrial Marketing Management*, 47, 6-16.

Lowe, B., Alpert, F. (2010). Pricing strategy and the formation and evolution of reference price perceptions in new product categories. *Psychology & Marketing, 27*(9), 846-73.

Neubert, M. (2013). *Global market strategies: How to turn your company into a successful international enterprise*. Campus Verlag.

Neubert, M. (2015). Early internationalisation of high-tech firms: Past accomplishments and future directions. *International Journal of Teaching and Case Studies, 6*(4), 353-369.

Neubert, M. (2016a). Significance of the speed of internationalisation for born global firms – A multiple case study approach. *International Journal of Teaching and Case Studies, 7*(1), 66-81.

Neubert, M. (2016b). How and why born global firms differ in their speed of internationalization – A multiple case study approach. *International Journal of Teaching and Case Studies, 7*(2), 118-134.

Obadia, C., Stöttinger, B. (2015). Pricing to manage export channel relationships. *International Business Review, 24*(2), 311-318.

Simon; H. (2015). *Preisheiten: Alles, was Sie über Preise wissen müssen.* Campus Verlag.

Snieskiene, G., Cibinskiene, A. (2015). Export price: How to make it more competitive. *Procedia-Social and Behavioral Sciences, 213*, 92-98.

Wei, J., Zhao, J. (2014). Pricing and remanufacturing decisions in two competing supply chains. *International Journal of Production Research, 53*(1), 258-278.

Yin, R. K. (2015). *Qualitative research from start to finish*. Guilford Publications.

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