

**INNOVATION AND PRODUCT DIFFERENTIATION IN THE APPLE MARKET.  
A STUDY OF CLUB VARIETIES**

by

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2008



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**Bibliographic information published by the Deutsche Nationalbibliothek**

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

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Printed in Germany.

ISBN 978-3-8322-7218-0

ISSN 0179-0749

Shaker Verlag GmbH • P.O. BOX 101818 • D-52018 Aachen

Phone: 0049/2407/9596-0 • Telefax: 0049/2407/9596-9

Internet: [www.shaker.de](http://www.shaker.de) • e-mail: [info@shaker.de](mailto:info@shaker.de)

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**ABSTRACT**

Due to increased competition and oversupply in the apple market, many producers suffer financial losses or make little profit. One way to overcome the strong competition is to introduce promising new varieties through a ‘club system’. The club concept involves close collaboration between club members in the sphere of production and marketing and aims at developing a special image for the selected variety that differentiates it from varieties already established in the market, as well as to demand higher prices.

Three consumer surveys based on non-probability sampling contributed to the present study. In two of them quotas of age, gender and nationalities were applied. The first survey (N=174), which was based on a student project, collected general information on apple consumption in Germany and provided indications for further research. Among other results it showed that older and female interviewees were more knowledgeable about apple varieties.

A sensory test (N=200) with the common apple varieties Elstar, Jonagold and Gala, as well as with the new club varieties Rubens and Red Prince was carried out at point of sales in a hypermarket. Tasting tests indicated that consumers want to have medium-sized apples with a firm and juicy fruit pulp. Both sweet and sour fruits are popular. A knowledge test with the selected varieties demonstrated the importance of distinct produce characteristics for successful product differentiation.

The third survey (N=320) focused specifically on consumer attitudes towards new apple varieties. The original attitudinal data was grouped into six factors, namely “Packaging/special offers”, “Innovativeness”, “Quality and assortment”, “Importance of apples for nutrition”, “Interest in apple varieties”, and “Origin of apples”. These factors were used as input variables to cluster the respondents into homogeneous subgroups and profile them in terms of socio-economic characteristics, consumption and buying behaviour as well as according to their sources of information on apples and attitudes towards names and labels of selected new club varieties. As a result five clusters were identified, among which one showed clearly innovative behaviour in relation to apple varieties. The “Innovators” (27%) are characterized by a strong interest in new apple varieties and in apple varieties in general, a high level of concern about the origin of apples and the importance of apples for the diet. These “Innovators” tend to be young to middle-aged, live in larger households with children, are actively employed and have a higher net household income. The remaining four clusters were named according to their behaviour and attitudes as “Nutrition-conscious consumers”, “Highly involved buyers”, “Ignorant consumers” and “Price-oriented consumers”.



**PREFACE**

A considerable part of this study was conducted by Tetyana Demydas for her M.Sc. thesis which was supervised by the co-author, Dieter M. Hörmann. One of the surveys presented in this publication originated in a course on Empirical Methods of Social Sciences and Marketing that was conducted by the co-author in the summer term of 2006. He was also largely responsible for developing the conceptual framework for this research.

The authors wish to thank the Elbe Obst Erzeugerorganisation r.V und Vertriebsgesellschaft mbH (Elbe-Obst Producer Group and Marketing Company) for its material and financial support of this study. We are particularly indebted to the Elbe-Obst managers Stefan Moje (official representative) and Jens Anderson (marketing and public relations) for their strong professional advice on the content of this research project.

Hannover, March 15, 2008

Tetyana Demydas and Dieter M. Hoermann

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## **ABBREVIATIONS**

ANOVA	Analysis of Variance
MELR	Ministerium für Ernährung und Ländlichen Raum für Baden Württemberg (Ministry for Nutrition and Rural Areas of the State Baden-Württemberg)
MSA	Measure of Sampling Adequacy
SPSS	Statistical Package for the Social Sciences
ZMP	Zentrale Markt- und Preisberichtsstelle für Erzeugnisse der Land-, Forst-, und Ernährungswirtschaft GmbH (National Market and Price Reporting Bureau)
$\chi^2$	Chi-square