# Mustafa Özal

Behavioral Finance and Stock Market Investing. The Importance of National Culture

**Master's Thesis** 

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### **Imprint:**

Copyright © 2018 GRIN Verlag ISBN: 9783346366160

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## Mustafa Özal

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Behavioral Finance and Stock Market Investing in the Light of National Culture
Abschlussarbeit
Im Rahmen des Masterstudiengangs
Betriebswirtschaftslehre (M.Sc.)
vorgelegt am
Lehrstuhl für Allgemeine Betriebswirtschaftslehre, insbesondere Finanzwirtschaft
Universität Bremen

von

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Bremen, 20.08.2018

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#### 1 Introduction

#### 1.1 Overview on Topic and Motivation

Understanding behavioral influences on an investor's decision-making surprisingly has not been driven much by the acknowledgment of the mediating role of culture. While behavioral finance criticizes excessive simplifications regarding an investor's behavior according to the homo oeconomicus, it makes the unrealistic assumption that actors exhibit universal biases and equally apply heuristics when facing different choices of action. This paper addresses cultural finance as an important background variable and suggests a conjoint effect with behavioral finance. This means that the culture can enhance, decrease or reverse biases and heuristics which are still mostly examined in the United States and only replicated in western countries. The paper is encouraged to implement cultural finance as a future research field.

"It is naïve to assume that such [financial] goals are culture-free. (...) The finance function has been the last stronghold in business administration to escape cross-cultural analysis". Hofstede (2001, p. 385)

As stated by Hofstede himself, the impact of research on culture has been weak for financial issues although it has become established in other business disciplines such as organizational theory, management & leadership, accounting, marketing, entrepreneurship or economic development. What makes this kind of research dominant in business fields, lies in the nature of culture itself. Hofstede (1983, p. 75) defines culture as a collective mental programming that shapes thinking, feeling, and acting in such way that it distinguishes the members of one group or from others. As culture is based on several fields like anthropology, sociology, and cross-cultural psychology, its application generates insights which still are not fully covered by traditional research. Also, collective mental programming means that cultural measures exhibit strong explanatory power between members of different groups<sup>1</sup> (Aggarwal et al., 2016, p. 467). While behavioral finance primarily examines how cognitive and social factors influence financial decision-making, cultural finance analyzes how values and

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<sup>&</sup>lt;sup>1</sup> Groups in the sense of cultures

attitudes of (national) cultures do. Since culture shapes the way of thinking, feeling and acting, one might argue that culture forms the base of cognitive and social factors.

The application of culture on finance faces some challenges which might explain its underpart. First, unlike financial measures like stock returns, which are based on numerical observations, culture is a difficult-to-define construct based on subjective answers mainly driven by interviews or questionnaires. Second, the combination of culture and finance might face methodological problems such as endogeneity. While reverse causality is a minor problem due to the fact that cultures remain stable even when economic conditions are changing, spurious relationships or autocorrelation and errors in measurement remain problematic. Spurious relationships can be addressed by including country-level controls, autocorrelation by watchful choice of variables and errors in measurement by the right execution of the study.<sup>2</sup> The most common challenge of cultural finance lies in establishing the theoretical link. Most of current studies are empirical and, if they have a theoretical framework, it is focused on direct effects of culture, but ignore the question about the background through which culture affects financial decisions<sup>3</sup> (Aggarwal et al., 2016, p. 467). Breuer/Quinten (2009, p. 13f.) criticize as well besides the small amount of contributions and the missing theoretical background the argumentation of most papers. They argue that there is less argumentation on the way culture works (direct influence channels), but more on the results which means that there is no orientation to implement and, thus, no justification to see cultural finance as fully developed research field. Williamson (2000) formed a model of economic institutions incorporating culture as an informal institution. In his model culture does not play a big role, but still gives a theoretical link for further empirical work.

<sup>-</sup>

<sup>&</sup>lt;sup>2</sup> An example for autocorrelation in cultural economics is provided by Williamson/Mathers (2010). When examining country's growth rates besides economic freedom and culture control variables where included. As a result, endogeneity occurred due to autocorrelations of economic freedom and investment rate as well as education and growth rates. Errors in measurement for example may occur when questionnaires are misleading for foreign cultures.

<sup>&</sup>lt;sup>3</sup> Indirect or background effects of culture

#### 1.2 Approach and Structure

The aim of this paper is to propose a model for cultural finance and to develop theory-based hypotheses on stock market investing. In contrast to the inductive financial research, a deductive approach is offered here to connect widely-accepted behavioral hypotheses on the stock market. The paper aims to identify possible cultural proxies for the strength and sign of behavioral biases. The next step is to propose plausible (causal) relationships to robust styles. Based on this, the last step focuses on the generation of hypotheses and the development of a model incorporating cultural finance in the current finance research.

Cultural finance can be explained in every discipline of finance; however, the focus lies on portfolio management and asset pricing while existing literature of culture on corporate finance is partly implemented. In this context, the paper is dedicated to identifying different trading patterns depending on cultural dimensions.

The remaining parts of this paper are organized as follows. Section 2.1 briefly describes the definition and application of widely known cultural dimensions, whereas 2.2 recapitulates a selection of behavioral biases and heuristics used by investors to gather and process information as well as to decide between different financial alternatives. Afterwards, in 2.3 the framework of cultural finance within current portfolio management and asset pricing is modelled. Section 3.1 deals with the findings on cross-cultural variations in risk attitudes, perception and preferences and additionally on the tendency for stocks to co-move. In 3.2 the selected cultural impacts on cross-sectional returns are presented to lead over to the core of this paper dealing with different investment styles in 3.3. Within chapter 3 many findings are connected to other sections to synthesize the discussion in chapter 4 whether cultural finance introduces a paradigm shift. Lastly, chapter 5 offers concluding remarks.