FORECASTING THE GLOBAL EXPORT MARKET POTENTIAL OF CERAMIC GLAZED TILE INDUSTRY

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Degree of Master of Science in Business Statistics

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DECLARATION

I declare that this is my own work and this thesis does not in corporate without acknowledgement by any material previously submitted for a Degree or Diploma in any other university or institute of higher learning to the best of my knowledge, and I believe it does not contain any material previously published or written by another person except where the acknowledgement is made in the text. Also, I hereby grant the University of Moratuwa the non-exclusive right to reproduce and distribute my thesis/dissertation, in whole or in part in print, electronic or other medium. I retain the right to use this content in whole or part in future work (such as articles or books).

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Name of the supervisor: Dr. P.M. Edirisinghe

Signature of the supervisor: Date:

ABSTRACT

In the global business arena, there is an intense competition, both in the world-wide and domestic marketplace. Due to this competition, business bodies of all sizes and varieties have more concern over market movements. It is important to foresee the market rather than arbitrarily competing. When we consider the benchmark of ceramic glazed tile business, it seems that China has managed to grow its market share rapidly in almost every region, and India also seems to be growing their business rapidly. Manufacturing of ceramic glazed tiles is one of the key businesses in Sri Lanka. The main intention of this analysis is to evaluate the ceramic glazed tiles market and develop a model to forecast its potential export opportunities in the coming years. This model of foreseeing the global export potential can help companies in making strategic decisions such as resource level decisions, setting objectives and evaluating performances, investing, exiting from current market, expanding, and venturing into new markets. Based on secondary data extracted from United Nations statistical division for international annual trading, we concluded that the Sri Lankan export market is highly reliant on Australian and North American markets. However, taking construction growth rates and worldwide trading figures into consideration, it is apparent that Sri Lanka has more opportunities in other regions. Based on the VAR model output, it could be concluded that the market will grow by CAGR 6 % (Benchmark 8.3%), 3% (Benchmark 17.1%) and 2% (Benchmark 15.8%) in the Africa, Asia and Middle East regions by 2024 where there are more opportunities. Other than these regions, Oceania, South America and North America are expected to grow by CAGR 10 % (Benchmark 2.8%), 8 % (Benchmark 4.8%) and 0.3 % (Benchmark 20.4%) respectively and there is more opportunity to expand current business in the Oceania region in the coming years.

Key words: ARIMA, Ceramics, Forecast, Multivariate, VAR

DEDICATION

To my wife, baby girl, parents, teachers and spiritual mentors

ACKNOWLEDGEMENT

It is with great appreciation that I would like to admire the support and knowledge given to me by Dr. P.M. Edirisinghe, Senior Lecturer, Department of Mathematics, during supervision of the thesis and I would like to pay my gratitude toward Professor T.S.G. Peiris, Professor in Applied Statistics and former Head of Department of Mathematics. Guidance given by them and suggestions helped me immensely in finishing this thesis in a way I can be pleased.

I would also like to express my gratitude to Mr. Mahendra Jayasekara, Managing Director at Lanka Tiles group for giving me the opportunity to join this industry. Mr. Nihal Kumarasinghe, Assistant General Manager Technical and Mr. Mahesh Mendis, Factory Manager at Lanka Walltiles PLC who always inspired and guided me throughout my career. Also, I would like to thank Mr. Anura Rathnayake, Group Business Development Manager at Lanka Tiles group who gave me vital information about international tile trading. Furthermore, I would like to acknowledge all the executives and staff for the support given during these few months at Lanka Walltiles PLC. Finally, I would like to thank all the lecturers and professors throughout my Master's and Bachelor's degrees who gave me knowledge and tools in order to handle the daunting tasks

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LIST OF ABREVATIONS

Abbreviation	Description
AIC	Akaike Information Criterion
ARIMA	Auto Regressive Integration Moving Average
BM	Benchmark
BRICS	Brazil, Russia, India, China and South Africa
CAGR	Compound Annual Growth Rate
EU	Europe
HQ	Hannan Quinn Criterian
HS	Harmonized System
JB	Jarque Bera
ME	Middle East
NA	North America
R&D	Research and Development
SA	South America
SC	Schwarz Information Criterion
SL	Sri Lanka
US$	United States Dollar
UN	United Nations
VAR	Vector Auto Regressive
VEC	Vector Error Correction
WCO	World Customs Organization