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Editorial

Journal of Econmics and Behavioral Studies (JEBS) provides distinct avenue for quality research in the ever-changing fields of economics & behavioral studies and related disciplines. The research work submitted for publication consideration should not merely limited to conceptualisation of economics and behavioral devlopments but comprise interdisciplinary and multi-facet approaches to economics and behavioral theories and practices as well as general transformations in the fileds. Scope of the JEBS includes to subjects of managerial economics, financial economics, development economics, finance, economics, financial psychology, strategic management, organizational behavior, human behavior, marketing, human resource management and behavioral finance. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to JEBS. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. Journal received research submission related to all aspects of major themes and tracks. All the submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. The current issue of JEBS comprises of papers of scholars from Turkey, Ghana, South Africa, Vietnam, Croatia, Indonesia and Malaysia. Strategic intervention, tourism development, consumer animosity & ethnocentrism, capital structure & firm performance, counterfeit merchandise, market size & customer willingness to purchase, financial sustainability of microfinance institutions, effects of substance abuse, determinants of tourism, effects of allocentrısm & idiocentrism, corporate social responsibility and inflation volatility are some of the major practices and concepts examined in these studies. Current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

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PAPERS

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Strategic Interventions in Tackling Poor Performance of Service Departments: Study on Muhibbah Engineering (M) Bhd, Malaysia

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Abstract: This case study describes the problems faced by Muhibbah Engineering (M) Bhd group of companies (Malaysia) due to the poor performance of it's service departments. This case was identified as a result of declining organizational performance of the company from the starting of year 2011 to early 2013. The main issues are declining profits (losses), delay in completing projects, customer complaints, skill depletion and poor organizational culture in the group besides other associated issues. The data related to the problems &issues are collected through personal discussions with the Project Directors of the company, company's financial reports, financial research reports related to the company and through company's website articles. The analysis is done on the inputs based on proven management concepts and theories such as leadership styles, organizational culture, span of control, performance management, human behavior and so on. The steps taken to mitigate the problems and the solutions are identifed through the changes made in the company through strategic interventions. The outcomes of each of the major interventions are recorded in this case study for the readers to understand and experiment them in similar and or different situations as the outcomes are positive and proven to be effective.

Keywords: *Strategic Intervention, service, performance*

1. Introduction

Year 2011, MuhibbahEngineering suffered RM 245 million losses in Asia Petroleum Hub project and the share prices of the company crash down. The Board of Directors of Muhibbahgroup decided to bring in the young educated family member CJ Mac into the group as Director, who is the elder son of the founder of the company Mac Ngan Boon. C.J Mac acadamically educated in the west in Engineering and Business join the Board of Directors and started his work as Business Development Director guided by the father and the rest of the Board of Directors. From it's inception in the year 1972, Muhibbahengineering group traditionally known and very famous for marine related construciton works was a preferable construction provider for the marine ports construction in Malaysia& Singapore. Most of the Government, Public &Private sector companies look for Muhibbah Engineeringto do this type of big projects due to the track record and the professionalism shown by Muhibbah Engineeringwith it's resources. Over the period of last 42 years, the marine constuction industry become very competitive in nature and Muhibbah Ebgineering is forced to compete with companies like IJM Corporation, Gamuda, WCT, Eversendai and many smaller companies competing in this type of projects. As a result, the group was finding it very difficult to get new projects due to political, economical & social influencing factors. This lead to skills migration to competitors and the service departments such as HR & Admin, Quality Assurance, Safety, IT, Plant & Assetwere performing below satisfactory levels due to the organizational hierarchical set up. Muhibbah Engineeringstarted incurring losses due to aforesaid issues by the year 2011, which influenced the management to bring C.J Mac on the Director's board.

C. J Mac studied the overall company's affairsand started observing the organizational culture of the company, core processes performance and the service departments performance critically as a young Director. He also studied the strength and weaknesses of the group with specifc reference to core processes and service departments. His prior experience as a project engineer for 5 years in various projects of Muhibbah Engineeringhelped him to understand the real issues faced by the projects due to the poor performane of service departments. His interaction with the elderly Directors and the peers from other companies gave him more insgiht into the business and he is clear on what exactly need to be done in the company for betterment. This has resulted in 3 major strategic interventions of the management besides others, which are described in details in the following pages. As a result of these3 major interventions, the company restrcutured the business processes of the company during the starting of the year 2013 aggressively and rolled out these 3

major initiatives.This has resulted in improved service departments performance as well as the core proesses and started to gain good profits and moving forward now.

The Profile of the Company: Muhibbah Engineering Bhd, shortly called as Muhibbah is the parent company of Muhibbah Group of companies located in Klang, Selangor – Malaysia (source: www.muhibbah.com, 2014).Muhibbahis a public listed company on the Main Board of the Kuala Lumpur Stock Exchange (KLSE) (source: Bursa Malaysia – Stock code 5703, 2014). Muhibbah is renowned for being a leader in Marine Construction since its incorporation in 1972. Today, Muhibbah stands firm in various disciplines of Engineering Construction, both locally and internationally (source: Insider Asia Sep'2013, 2014).Over the last 42 years, Muhibbah has established itself as a renowned international oil and gas and marine engineering specialists providing engineering, procurement, construction and commissioning (EPCC) of LNG jetty, oil terminal, oil storage tanks, gas pipes laying, bunkering facilities, ports, bridges, dams , marine facilities and infrastructure works in Southeast Asia, Middle east and North Africa.
Muhibbah also wholly-owns a shipyard named Muhibbah Marine Engineering (MME), which builds anchor handling tug boats, supply vessels, accommodation ships as well as ship repair services to the offshore oil &gas Industry. Muhibbah also has the following subsidiaries, which are specialized in their respective field of engineering:

- MSI – Muhibbah Steel Industries Sdn Bhd – Fabricating steel structures.
- MPE – Muhibbah Petrochemical Engineering Sdn Bhd – Oil &gas, piping, petroleum and gas storage tanks fabrication.
- MASI – Muhibbah Airline Support Industries Sdn Bhd – Design, fabrication and supply of airway bridges and its maintenance.
- CiTECH – CiTECH Energy Recovery Systems Malaysia Sdn Bhd – Oil &gas platforms waste heat recovery units fabrication and supply.
- MEB CON – Muhibbah Engineering Construction Division – Construction of buildings &infra Projects.

Muhibbah group employs close to 1,200 professionals / employees in approximately 10 countries and also employs approximately 6,000 sub contracted employees in its projects and subsidiaries. The group's overall turnover per annum stands as of now at RM 2.5 billion (source: Insider Asia – Sep'13, 2014). The group has ambitious plans to increase the turn over to RM 4 billion within the next 3 to 5 years and working aggressively towards achieving this target. Muhibbah group's vision& mission statement is "Forging ahead with Globalization and focused diversification in the pursuit of excellence". Muhibbah is currently going through a strategic restructuring program due to the entry of C.J Mac as the Director to the Board since year 2011.

Problems: Muhibbah has grown up organically from a smaller company to a bigger corporate group over the last 42 years. When the company was smaller, the following departments were created to take care of the business processes.

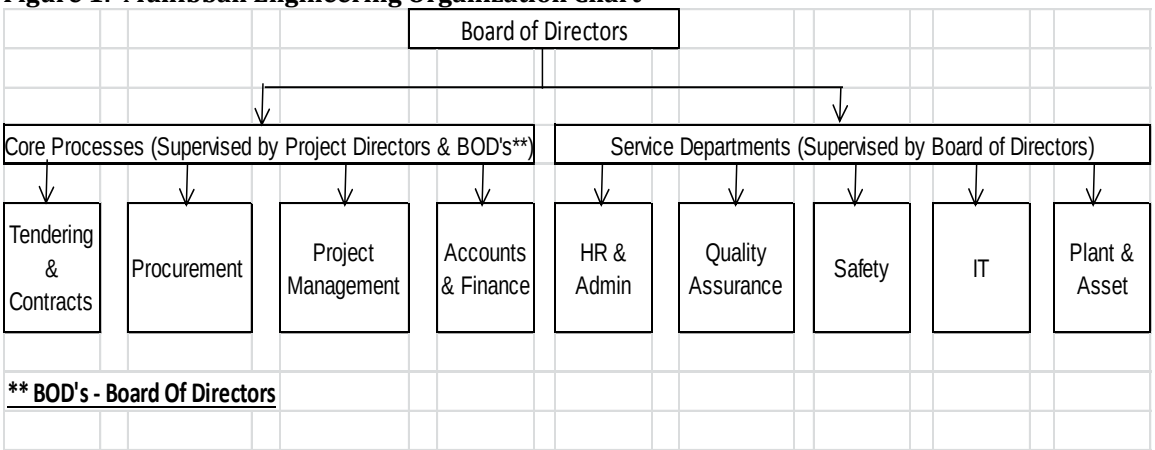
Core Processes (Project Management Departments):

- Tendering & Contracts
- Procurement
- Project Management
- Accounts & Finance

Supporting Processes (Service Departments):

- HR & Admin
- Quality Assurance
- Safety
- IT
- Plant & Asset

Figure 1: Muhibbah Engineering Organization Chart



The Head of Departments (HOD's) of these processes / departments were reporting directly to the Board of Directors on the affairs of their departments, whilst, the core processes HOD's are reporting in parallel to the Project Directors too, who are responsible for the performance of Muhibbah's projects. As the business grew up, the company has grown to a corporate company with many subsidiary companies like MSI, MPE, MASI, CiTECH, MME and there were similar type of departments / processes created in the subsidiaries to handle the above processes and the Head of Departments of the parent company Muhibbah were promoted as Corporate Managers to take care of the processes related to Muhibbah's projects as well as the subsidiaries processes. Accordingly, the Corporate Managers started to look into the affairs of the parent company and also the subsidiaries on their respective areas and reported the performance to the Board of Directors. The Corporate Managers of these processes liaise with the Project Directors, Project Managers of the parent company projects as well as the Subsidiary heads.

The Board of Directors used to monitor the Corporate Manager's performance based on their understanding and decisions were made accordingly. As the years passed by, the group has grown and Board of Directors became too busy with the business unit's performance and business growth related issues. Accordingly, their main focus has been on the performance of the core processes rather than the supporting processes performance (service departments) and the Corporate Managers responsible for the service departments were really not supervised on their performance for a prolonged time period. This has led to the following organizational culture:

- Corporate Managers of service departments not attending the office regularly and in time.
- Corporate Managers of service departments doing their own business and personal works at office hours.
- Corporate Managers of service departments working without any specific objectives or KPI's and attending to the daily routine works, without any commitment.
- Corporate Managers of service departments working with low morale and enthusiasm.
- Very low accountability and job satisfaction at Corporate Managers of service departments.
- Service departments Corporate Managers were on PAEO (Perceived Alternate Employment Opportunity) culture and so on.

The above organizational culture, lead to the development and aggravation of the following problems:-

Problems faced by the Core Processes

- Cost overrun in many of the projects undertaken.
- Substantial delay in completing the projects.
- Additional cost spending due to quality defects / reworks and delivery related issues in projects.
- Less profit margin to the company.
- Share prices of the company falling down below its issued price.
- Loss of credibility and company image.

- Lack of innovation, knowledge management & automation.
- Loss of competitive advantage.

Problems faced by the Service Departments

- Customer complaints on quality of works carried out in the projects.
- Accidents, Incidents, LTA's (Lost Time due to Accidents) in projects.
- High Employee turnover and absenteeism.
- Low morale of the employees.
- Too old IT operating systems / software with outdated equipment and poor compatibility without any proper policy and framework to meet the technological changes happening in the industry
- Plant and Assets purchased are not properly maintained leading to frequent breakdowns, down times, expensive repair works, unnecessary hiring of outside equipments due to own equipments breakdown etc.
- Skills migration and depletion from the company.

Problems faced by the overall organization

- Project managers and subsidiary heads were not listening to the instructions of the Corporate Managers of service departments.
- Favoritism culture.
- Variation in compensation and unstructured promotions & benefit grants,
- Lack of transparency in personnel and administration activities,
- Lack of performance and learning culture in the organization.

2. Strategic Interventions

Followed by the financial losses in the year 2011, understanding the need to restructure the company and to improve the performance of the business and the service departments performance, the Board of Directors decided to bring the young educated family member CJ Mac into the business and the second generation director took charge of the business under the shadow leadership of the elderly directors. The young director has relevant education academically from a recognized university in the west and has played observatory role for a period of 2 years in the company (besides 5 years' experience in projects as Project Engineer) studying the culture of the company and the business performance. CJ Mac continuously orient with the various department heads of core processes as well the service departments to understand the existing issues of the company and constantly / carefully discussed the issues with the elderly directors and got their inputs and advices on matters of business interest.

After 2 years of study, the young director C.J Mac. Put up a restructuring plan to the Board of Directors, highlighting the following areas:

- Business Diversification from normal construction to Oil & Gas construction + normal construction.
- Restructuring the construction business into 3 major business areas like Airport, Building& Infrastructure (ABI), Marine and Oil & Gas with dedicated Project Directors responsible and accountable for business performance of each sector.
- Assigning additional responsibilities to the Project Directors to enhance the performance of the UNDER PERFORMING service departments efficiency to the required levels.

Accordingly, the poorly performing service departments were given the directive to report directly to the Project Directors of the 3 business areas as follows with effect from 01/01/2013:-

- ABI Project Director -Responsible for HR & Admin Department, IT Department.
- Marine Projects Director - Responsible for Plant & Asset.
- Oil & Gas Projects Director- Responsible for Quality Assurance & Quality Control, Safety.

Key Performance Indicators (KPI's) were set for each of these 3 Project Directors for their own area of business as well as for the service department's performance. The service departments Corporate Managers were asked to report their department's performance and affairs to these Project Directors on a day to day

basis. This has resulted in establishing KPI's for the service departments as well, which were not there before. These KPI's were linked to the service department's Corporate Manager's yearly performance review for promotion, increment, bonus and other performance related rewards.

Outcomes of each Intervention

Intervention – 1 – Business Diversification – Outcome: This was the major policy change in the company's business decision ever, which drove the company to seriously study the requirements of Oil & Gas sector, which led to the following:

- To collaborate with major Oil & Gas players in the world like Shell, Exxon Mobil, PETRONAS and BP etc.
- The above has created an opportunity to participate in constructing a biggest LNG Oil & Gas project** in Melaka. Muhibbah successfully completed the project with the satisfaction of the client and led to the recognition by PETRONAS and got awarded with PETRONAS License to do major Oil & Gas projects in Malaysia and other parts of the world.
- As PETRONAS License is a very difficult recognition to achieve and since it is limited to only handful of companies in Malaysia, soon after getting the license, Muhibbah's share prices climb up from RM 0.8 / share to RM 2.5 / share.
- Today, Muhibbah is tendering a lot of Oil & Gas projects in Malaysia and overseas, which has good potential for success and growth of the company.

Intervention – 2 – Restructuring the Construction Business – Outcome: Restructuring the construction business and division of business resulted in the birth of 3 major construction sectors within the company, which in turn resulted in the following:

- Project Directors become more responsible & accountable for their own business areas and they really take care of their business areas in their own ways& styles for betterment of their sectors.
- Authority given to them on their area made them to take decisions quickly and execution became faster.
- Competitive aggressiveness came in and each Project Director is trying to compete with each other in terms business performance, revenue creation, innovation, customer satisfaction etc.

Figure 2: Muhibbah Engineering – Business Diversification. (Source: Project Directors, 2014)

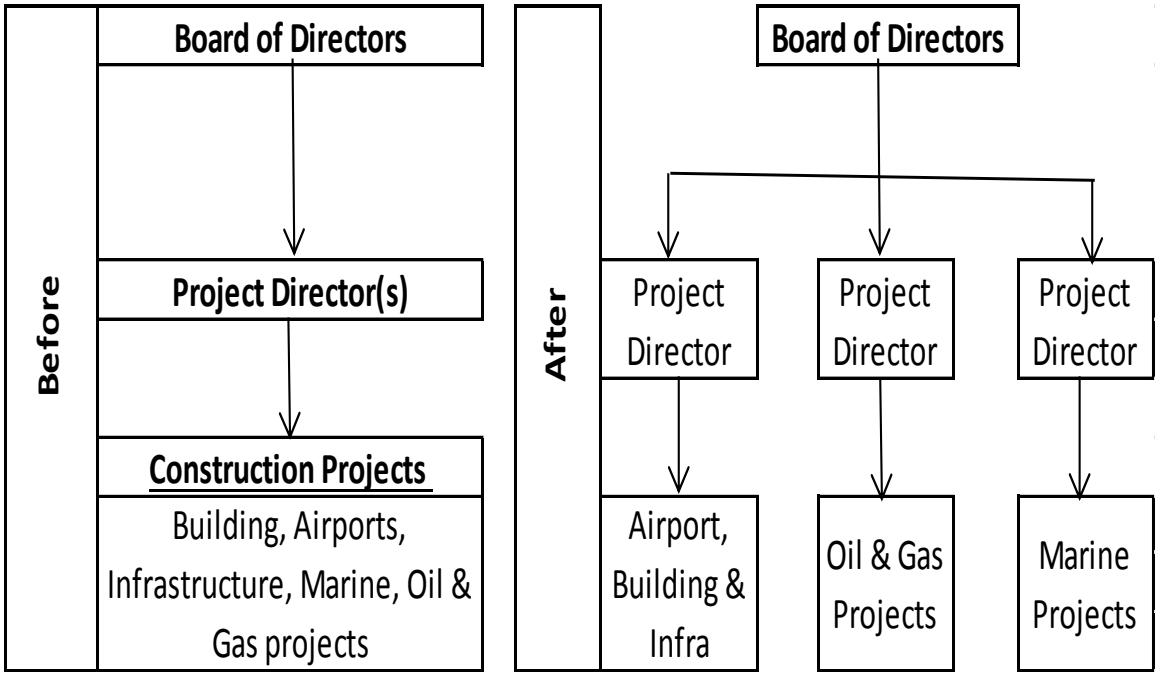


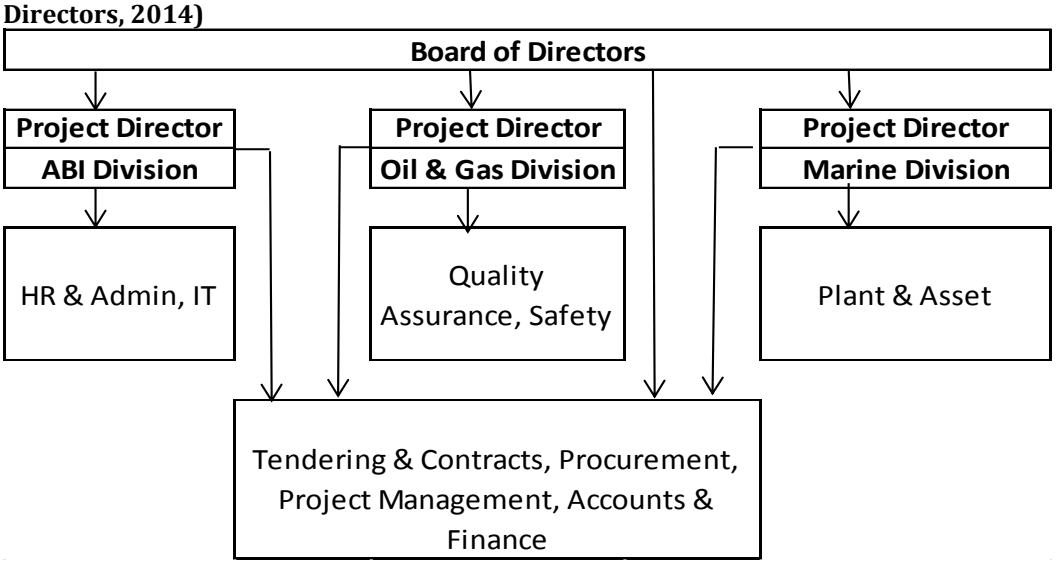
Figure 3: Muhibbah Engineering Share Price trend (Source: Yahoo Finance, 2014)

Share prices shot up from RM 0.8 / share to RM 2.5 / Share due to the strategic interventions of the management mentioned above.**(Source: Yahoo Finance)**

Intervention – 3 – Assigning Additional Responsibilities to Project Directors to Oversee Service Departments – Outcome: Assigning additional responsibilities of service departments to the Project Directors resulted in the following:

- Service departments Corporate Managers were given KPI's to achieve and their performance were critically reviewed.
- Complete outlook and the way the service departments operate were questioned and many strategic changes were introduced in this departments such as addition of performing new employees, removal of non performing employees, introduction of new procedures, introduction of new software / methodology etc.
- Regular meetings were conducted by the Project Directors with their respective service department teams and the progress of the service departments went up considerably.
- This has resulted in improved service departments performance, which led to the improvement of the core business processes performance and hence the overall company performance.

Figure 4: Muhibbah Engineering – Service Departments Responsibility Assignment. (Source: Project Directors, 2014)



3. Justification 0f Managerial Decision Making and Critical Analysis

While analyzing the above critically, the following are evident.

Area	Analysis
Service Departments Performance	Important for the Organization's Performance as it has direct correlation to the core processes and its performance.
Human Behavior	Irrespective of whether the employee of a company is a worker or a Corporate Manager, monitoring and supervision is necessary to ensure continued performance of the individuals. Prolonged omissions will lead to poor performance and dissatisfaction to both employers as well as employees.
Business Succession Planning	For family owned companies, when the owners of the first generation is getting elder, introduction of the second generation is essential with proper supervision to turn around as well as to sustain the business.
Business Process Re-engineering	When the organizations are not performing upto satisfaction, the critical need for Business Process Reengineering arises.
Business Diversification	At appropriate times, organizations need to diversify their businesses for better performance.
Business Performance Management	For sustainable performance and improvement, KPI's (Key Performance Indicators) are necessary to guide the departments towards performance.
Organizational Culture	Organizational performance is highly related to the organizational culture. Better culture improves performance and vice versa.
Leadership Styles	Leadership styles of top management have direct relationship to the performance of the organization. If the leaders neglect certain areas in the organization, the chances are, there will be problems at a later stage.
Span of control	It is evident from this case study that, even though there are well experienced Directors on the Board, the company's performance can go down if they do not have time to supervise the departments reporting to them directly.
Flux Leaders	Second generation leaders of our times has a distinct advantage over others in the sense that, they are academically educated in

	best educational institutions. They are techno savvy and this gives a new insight into their business leading to success through innovation, out of the box thinking and so on.
Empowerment	Empowerment of individuals lead to improved performance is evident in this case study as the Project Directors assigned with additional responsibility brought in improved performance and competing culture in the company.

4. Conclusion

It is evident from the above case study that, neglecting service departments' performance over a prolonged period of time can lead to poor performance of the service department's deliverables, which will affect the performance of the core processes subsequently. This will have a direct impact later on the overall business performance of the company. Strategic interventions are necessary to sustain the business and serious business re alignments become mandatory for improvements in business performance. Many first generation companies suffer serious damages during the elderly stages of the founders due to this fact and those companies, who did the adjustments and succession continued to enjoy the sustainability, growth and stability. Injection of new talents and young thoughts in the organization in the form of educated young Directors entry to the organization under the shadow leadership of elderly Directors is a good combination for successful organizational turn around. The above points were evidently proved from the above case study in Muhibbah Engineering, in which the poor performance of service departments were realigned along with the Business Process Reengineering initiatives, which turned the company towards successful path. Today, Muhibbah Engineering Share price stands at RM 2.5 / share and expected to go up to RM 3.25 / share by mid-2014 as per the predications of the financial advisory sources. By understanding this big leapfrog change in the company, we can generalize that, Service Department's performance is crucial for every organization's sustainability and success.

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Township Tourism: The politics and socio-economic dynamics of tourism in the South African township: Umlazi, Durban

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Abstract: The paper analyses how tourism development at Umlazi which is one of the second biggest Townships in the Southern hemisphere has been hampered by politics and socio economic dynamics that stifle the empowerment of both tourism entrepreneurs and local communities respectively. The impacts of tourism have been given much attention by scholars to examine the perceptions and attitudes of local residents towards Township tourism in South Africa. However, there is little research that focuses on how much political and economic dynamics of the past and present dispensations have adversely impacted on the tourism economic development of small emerging entrepreneurs and local residents of the Townships. This study attempts to make a little contribution to South African Township tourism by examining political and economic dimensions that hinder small businesses and local residents of uMlazi to thrive and get empowered through tourism. Township tourism in South Africa has slightly improved and grown in popularity since 1994 and is considered by the government and other social agents to be an appropriate opportunity for small businesses and the stimulation of local economic development. However, the paper argues that tourism fails to act as a panacea of economic development in the township of Umlazi, since there is lack of business opportunities, intervention and support of local government, private sector and racial groups that are endowed with more than enough financial resources. Data were collected by means of interviews that allowed the interviewer to pose some open-ended questions so that the interviewee could express his or her own opinion freely for the extraction of more information. Based on 30 respondents surveyed, the findings show that there are numerous obstacles that are directly linked to political and economic dynamics. These obstacles include lack of political intervention and financial support for tourism entrepreneurs and local residents of UMlazi Township. On the whole respondents viewed Township tourism negatively. They were generally of the idea that township tourism can only be of benefit to residents once it is often visited by racial groups who are better off financially after their fears about safety and security have been allayed.

Keywords: *Townships; financial support; tourism; economic development; small businesses*

1. Introduction

Township tourism in South Africa has grown in popularity since 1994 and is considered by some especially in the government circles to be an appropriate mechanism for stimulating job creation and local economic development (Bonn *et al*, 2007). Yet several problematic and political issues related to the implementation of tourism policies for tourism development to create jobs as claimed are evident in the township tourism literature. Struggles over tourism development in most of the African states or throughout much of the temporary sub-Sahara Africa, are to a large degree simply windows into wider contests over market access, economic and political empowerment, and citizenship (Diamonds & Plattner, 2010). In Africa, the political character of the post- colonial state shapes these struggles in fundamental ways. Contextualising efforts to link tourism development and poverty reduction within these wider political –economic systems is central to understanding the outcomes observed, and to develop appropriate strategies that can effectively address these challenges. This paper focuses on political and socio- economic dynamics that adversely affect the prosperity of small tourism entrepreneurs and the local residents of Umlazi Township in the province of KwaZulu-Natal in South Africa who should in essence be beneficiaries of tourism development. Umlazi township was politically popularised and became a centre of attraction in the early 80's when a political civil lawyer was brutally slain by the agents of an oppressive government, whose wife was also assassinated in the driveway of her home in front of her children by four men (security police) shortly after speaking at the funeral of four freedom fighters known as Craddock four.

Alden (2011) argues that tourism development itself is often part and parcel of elite patronage or accumulative interests; political elites and their allies are often significant investors or shareholders in tourism properties and development. This is partly because elites have privileged access to and control over

land and other state-held assets. The existing political-economic order in most African countries creates substantial barriers to ordinary citizens' entry into tourism markets (Nelson, 2011).Tourism is increasingly and incessantly being recognised for its economic potential and its contribution to poverty alleviation (UNWTO, 2006; Spenceley, 2008). Bonn et al (2007) however, points out that tourism benefits often do not filter down to poor communities. It is thus critically important to investigate obscured political socio-economic dynamics that make it highly impossible for township residents to benefit socially and economically from tourism as an industry even though it is regarded as a panacea for poverty alleviation (Ashworth, 2004). Honey (2008) argues that while Africa 's tourism industry itself thrives based on the blessing of the continent's natural and cultural assets, and the tourism role in development policies becomes increasingly mainstreamed, most countries including South Africa are also establishing themselves as an emblematic cases of contradictions and tensions that constrain sustainable tourism development in Africa. While national policy makers extol the potential of tourism, local communities living alongside leading tourism sites proclaim that tourism is a curse to us (Rogers, 2004).

Ashworth (2004) contends that the development of township tourism is merely an exploitation of heritage and suffering of others for pleasure and entertainment of visitors. According to Pirie (2007) tourists are often taken to township areas on superficial journeys and in most cases there is very little or limited interaction between them and the local residents. There is a constant struggle between market viability and authentic representations of local cultures and tourists are regularly taken on pseudo-trips that do not reflect past or present realities (Ramchander, 2007). Another critical question with regard to township tourism is whether real opportunities for job creation and economic empowerment in general are accessible to local residents. There is no tangible and practical proof that the socio economic conditions of township residents are changed by tourism (Nemasetoni & Rogerson, 2007). Nemasetoni& Rogerson (2007) argue that because of constrained access to markets, limited funds for marketing and lack of support from established enterprises and political municipal authorities, the majority of black tour operators become marginalised in a situation of large firm dominance of the tourism operating industry as a whole. It is on the basis of the above aforementioned assertions that this paper argues that tourism even in the biggest townships of South Africa such as Soweto and Umlazi is not necessarily a viable or responsible developmental option, since political transformation still fails to create opportunities for pro-poor to benefit from township tourism as it is arguable non-existent. Although the political and economic liberalization that has taken place since 1994 in South Africa has created much greater flows of investment and revived economic activity in many sectors, but tourism has not developed significantly to empower Township emerging entrepreneurs and Local residents thereof.

2. Literature review

According to Chachage & Mbunda (2009) there are a range of fundamental implications for tourism development patterns and process that emanate from political economic dynamics in the African states. Firstly, tourism development itself is often a part and parcel of elite patronage or accumulative interests; political elites and their allies are often significant investors or shareholders in tourism properties and developments. This is partly because elites have privileged access to and control over land and other state-held assets (Renton, 2009). Alden (2011) argues that high level of corruption, coupled with centralized discretionary authority, result in the state serving the private interest- for dispensing patronage and personal enrichment- of those in power. Until 1994 heritage tourism in South Africa essentially was synonymous with 'white heritage' and reflected exclusively the needs and interests of the countries' white minority (Gasper *et al*., 2005). Visser & Rogers, (2004) suggest that the emergence of 'township tourism' is largely a phenomenon of the post-apartheid period that has stimulated curiosity and popularity for townships to attract more tourists to the sites of significance to anti-apartheid movement as well as improving tourists' understanding of poverty issues of historically oppressed communities. Indeed, township tourism has been termed a South African variant of justice tourism because of its features that are mostly symbolic of the past apartheid system (Scheyvens, 2002). Although the South African Department of Trade and Industry (DTI) has identified tourism as a socio-economic developmental strategy and one of the priority sectors that warrants promotion for Townships, studies suggest that there has been little empirical evidence to prove that attention is devoted to issues surrounding the development of tourism Small Medium Enterprises and the empowerment of local residents (Visser and Rogers, 2004). In variably, the existing literature is dominated by studies of the

accommodation sub-sector and specifically of white owned bed and breakfast establishments or small guesthouses (Visser and Kotze, 2006; Rogerson & Visser, 2007).

Moreover, throughout the apartheid period, high levels of political violence made the black townships 'no go zones for white international and white domestic tourists (Van Staden & Marais, 2005).In fact even today 20 years later when apartheid was substituted by a democratic government in South Africa, whites in the country hardly set foot to townships, to them townships are still no go zones. In consequence, there is little or no evidence proving that the poorest of the poor benefits significantly from tourism generally or more specifically from township tourism (Nemasetoni and Rogers 2007; Ramchander 2007; Rogerson 2004; Saayman et al. 2012).Local entrepreneurs, who initially organised township tourism, face various challenges such as fierce competition from established, predominantly white-owned tour operators who have since entered the market, limited skills and access to finance and a weak product base (Rogerson 2004, 2008, 2013; Rolfes 2010). Other studies suggest that township tourism needs to be developed more responsibly to ensure economic opportunities for small emerging entrepreneurs and local communities (Booyens, 2010; Briedenhann and Ramchander, 2006; Ramchander, 2007; Rogerson, 2013). Briedenhann and Ranchander (2006) also suggest that it is the responsibility of the tourism industry and the government especially at local level to ensure that local communities share the benefits of township tourism without being exploited in the process.

Jurgens et al. (2013) argue that townships have emerged in recent years as priority areas for urban restructuring and economic development. According to Scheyvens (2002) there is a striking absence of formal economic activity in the townships in contrast with its sizeable resident population. Ngxiza (2012) argues that with reference to the townships of South Africa, there is a lack of opportunities, absence of robust economic base as well as chronic skills shortage. Jurgens et al. (2013) argue that townships leapfrogged immediately to a post-industrial economy characterised by leisure facilities such as shopping malls, accommodation establishments and museums. Townships are therefore repositioning themselves on the pleasure periphery and are emerging as niche markets for leisure and tourism (Jurgens et al. 2013). Jurgens et al. (2013) propose that critical questions need to be asked about the emerging market for tourism and leisure in townships and about the sustainability of such activities. Notwithstanding this, there is a desperate need for viable economic development in townships of South Africa to stimulate local economic growth and alleviate poverty (Jurgen et al. 2013). According to Booyens (2010); Rolfes et al. (2009) South Africa visitors have very limited interaction with Township residents.

GTA (2001) asserts that township tourism offers visitors visual evidence of the deprivation wrought by the apartheid regime. Poverty is ubiquitous, a factor that makes the lives and indomitable spirit of township dwellers even more admirable. Squatter camps, or informal settlements, are home to many of the escalating number of unemployed who use corrugated iron sheets, or any other available material to build shelters. Lacking basic amenities such as running water and electricity which manifested itself to load shedding during the conduction of the study and shelters that are hot in summer and cold in winter make for hazardous living. Despite their poverty, the shack dwellers have built a strong sense of community. Other manifestations of apartheid include the original dwellings, sardonically known as 'matchbox houses' constructed to accommodate Blacks who were forcefully removed from Glebelands and Clairwood. Initially Umlazi was an outskirt which was unilaterally turned by an oppressive regime into a township and the dwellers were the first occupants of newly build houses. Unfortunately the democratic government which was incepted in 1994 has continuously failed to manifest itself to socio-economic transformation for township communities. Tourism has always been a missed opportunity. Sakolnakorn (2013) suggests that the policy guidelines for tourism development in poor communities should necessitate the government agencies. The study concurs with Sakolnakorn and further suggests that the government agencies should be involved in tourism policy focus on several aspects that can assist in empowering township communities. Page (2003) argues that the local governments need to support all tourism activities and increase of the number of tourists. Watanasawas, (2011) also regards empowerment and sustainability as one of the necessities of daily life for both communities and tourists. That is why the study considers security and access to township tourism as one of the aspects that the local government officials involved in tourism should consider in order to empower Township communities. The study also suggests that for the sustainability of tourism development in

townships, the government at all levels from National to Local, should consider the concerns of all tourism role-players especially the small business entrepreneurs and local communities.

3. Methodology

The main objective of the study was to determine political and socio economic factors behind the inability of tourism to be able to transform Umlazi Township to become an engine for economic development for emerging small entrepreneurs and local residents. The research paper was influenced by studies of Rogerson (2013) and Rolfes (2010) which concluded that tourism entrepreneurs in townships face challenges such as fierce competition from other well established white competitors who were previously favoured by the past regime. The paper further argues that the inability of townships to be able to develop and play an integral role in tourism is due to a political history of South Africa that excluded black entrepreneurs to participate in the economic mainstream. This qualitative study has precisely focussed on political dynamics that retard tourism from playing a mammoth task of achieving socio economic development for emerging entrepreneurs and local residents at uMlazi Township, and the following themes drawn from research questions were generated as core constructs for unstructured interviews comprising of open-ended questions which at some stage could be posed by the researcher to allow interviewees to participate freely.

- The extent that the political past and present affected adversely tourism economic development in the uMlazi Township,
- Whether the democratic municipal authorities support and provide security to small business entrepreneurs involved in tourism in the Township.
- Whether local municipal authorities do capacitate and give Township communities a hands-on training in order for them to benefit from tourism activities.
- Whether the function and existence of Community Tourism Organisations (CTO,s) assist their businesses and local residents
- Whether small business entrepreneurs do access funding to run their businesses in order to expedite tourism economic development through job creation for residents in the Township.

Research Instrument: An unstructured interviews that allowed the interviewer to pose some open-ended questions when need be for respondents to express their opinions freely were developed. Data collection was solicited and executed from 50 respondents. The representation of respondents included4 emerging tourism entrepreneurs who participated freely and robustly at uMlazi Township, two Community Tourism Organisations (CTO,s) comprising of 10 active members and5EThekwini Municipality Tourism representatives2 representatives from Tourism KwaZulu-Natal and 30community members. The first 10questions related to the extent on which tourism entrepreneurs and local communities were directly affected by apartheid and the present democratic government. Question 11 to 19 referred to the perceptions of entrepreneurs regarding the role of eThekwini municipality in the provision of security for tourists visiting their businesses. 20 to 30 questions were about the existence, function and the role of Community Tourism Organisation to ensure that the local communities become beneficiaries of tourism.Questions31 to 39were referring to the local community in terms of the role of the municipality authorities(Tourism KwaZulu-Natal) to capacitate and empower them. From question 40 to 50small tourism entrepreneurs were required to elaborate on the role of the municipality as an organ of government, financial institutions such as banks and private sector in assisting them to solicit funding in order to kick start or take their businesses to another level.

Data Collection: The Data were collected in five days as it depended on the availability of respondents. The process of interaction between the researcher and respondents took place in July 2014 and lasted for five days as already mentioned above. The interviewing interactive process involved four emerging tourism entrepreneurs whose businesses were confined and restricted to two Bed and breakfast and two classy and famous multi-purpose attractions known as Kwa-Max Life style and Eyadini, thirty community members, Community Tourism Organisations, Ethekwini Municipality Tourism representatives and Tourism KwaZulu-Natal as broadly aforementioned. The duration of interviewing for each respondent lasted for more or less than30 minutes. To execute the above mentioned tasks on the concerns driving the study, open ended and un-structured questions were developed and used as a tool for interviewing the managers of a few tourism-

related enterprises in uMlazi. Due to very few and limited tourism-related enterprises at Umlazi, the study only focussed on two bed and breakfast owners and two main and famous tourist attractions called Kwa Max Lifestyle and Eyadini. The latter attractions render multi-functional services such as that of a restaurant, a bar, braai meat facilities and huge space used by various kwaito and African hip hop National artists when entertaining young and middle age extroverts and music fanatics.

Data Analysis: Raw data previously transcribed from respondents during interviews were categorised as themes that were inextricably linked to research questions. Themes of concern were formulated in order to examine adverse effects of politics on small businesses, barriers of local communities to achieve tourism economic development in the township, municipality and financial support for small tourism entrepreneurs, opportunities, support, and provision of security by eThekwini Municipality, the assistance of Community Tourism Organisation to small businesses and local residents and finally barriers to access funds by emerging small business entrepreneurs to fast track tourism development and job creation in the Township. Capturing of data was achieved through transcribing and tape recording. This was precisely done for accuracy sake to avoid spicing what came from respondents and also to ensure making logical inferences from data collected. Reliability and validity was achieved through ensuring that all respondents were asked questions in accordance to their language of preferences to prevent unnecessary misinterpretations and misunderstanding.

4. Discussion of results

Open ended questions used for unstructured interviews were designed for all targeted groups of stakeholders as aforementioned: emerging tourism entrepreneurs, community tourism organisations Ethekwini municipality tourism representatives and community members. The overall attitude of stakeholders towards the role of politics to ensure economic development of the residents in the Township of tourism is negative. Tourism is not seen as the main branch for the empowerment of residents and small businesses in the Township of Umlazi. The results show that the support of the municipality as the segment of the National government to transform the residents of uMlazi through tourism is week among the stakeholders. Furthermore, stakeholders themselves have developed a negative attitude towards everything that has something to do with tourists and the government. Local residents strongly perceive the inability of tourism to change their plights as an attribution of government policies that fail to translate to reality.

Past and present political effects on tourism economic development: All the respondents suggested that the apartheid era in South Africa with its repressive laws, constitutionalised racism and high levels of political violence made the black township no go zones for financial well- off races. So tourism became a missed opportunity for township communities. Eruption of sporadic political violence in the South African townships before 1994 threatened the safety and security of tourists which then prevented tourism activities from taking place in uMlazi. However, during the democratic political transition, relatively some townships gradually became accessible to tourists and opportunities have opened for black South African communities with the exception of Umlazi. Findings suggest that there are two main tourism attractions at V section in Umlazi that are very close to each other. The present democratic government is not significantly offering township residents opportunities for economic development. The study reveals that there are very few residents who are benefiting from tourism in Umlazi Township. Residents confess that the government is unable to help them so there is absolutely no tourism economic development at uMlazi. The Ethekwini municipality is unable to assist different enterprises as well. A range of obstacles in terms of tourism offering in uMlazi were revealed. For instance, the absence of awareness campaigns to capacitate and train residents to survive through tourism was highlighted. Small business entrepreneurs echoed the same sentiments. For instance, one entrepreneur whose business is doing very well blames Ethekwini local municipality for failing to make uMlazi tourism destination. His opinion is that the municipality is unable to deliver key infrastructure including security and tourism business skills to Township communities. The respondent claims that the provision of security for tourists and local visitors has become his responsibility since his attempts to ask metro police to assist during hectic weekends have proven to be fruitless. He echoed that the local municipality even fails to provide signage for their businesses and applying to obtain an Operating Licence as compliance takes long for blacks. The compliance costs and membership costs are quite

burdensome and not easy to obtain so some aspirant small entrepreneurs operate without registered under Southern African Tourism Services Association (SATSA).

The Southern African Tourism Services Association (SATSA) is the definitive association for members of the inbound tourism industry. It is a member-driven association that spans all sectors including accommodation, transport, tour and adventure operators, publicity associations and other tourism services. There is however, little evidence that the residents benefit significantly from township tourism. There is neither capacitation for communities to be enlightened about the nitty gritty of tourism nor assistance rendered by tourism community organisations if ever they do exist. Two mega businesses that serve as a trump card for Umlazi Township as tourists' destination cannot provide significant jobs for the entire communities of Umlazi. Some residents take an advantage of these businesses and work as car guards who look after visitors' cars who always patronise these two major entertaining tourist spots. In reality there is no tourism that benefits most of umlazi residents. There is absolutely no development in terms of access to entrepreneurship and employment opportunities, small business support, participation in decision making and local tourism product ownership.

Municipality and financial support for small tourism entrepreneurs: There is no direct access to funding through the assistance of the national government support programmes for small business, the entrepreneurs' lack of collateral or credit track record emerged as a stumbling block for business development. According to a successful business interviewee "because of the absence of collateral, it was difficult if not possible to get a loan from the bank and the inability of the government to intervene and force banks to assist township entrepreneurs is worrisome in a new democratic dispensation. I am so proud that my business is so successful although it was never funded".

Accessing funds to expand small tourism businesses in uMlazi Township: The survey disclosed that the business of the emerging entrepreneurs of uMlazi township is confronted by an array of challenges in terms of its further expansion. The interviewees revealed that the two core problems of uMlazi entrepreneurs concern access to sources of finances and access to markets and marketing support. It's only two massive and classic attraction called kwa-Max Lifestyle and Eyadini that show no sign of desperation in terms of finances and markets. Owners of the aforementioned successful businesses boast that the growth of their businesses is inexorably. The general concerns and frustration of the small business entrepreneurs in accessing finances are captured in interview responses that follow:

"It is not easy to access funds. My business plan was turned down and the reason stated was on the basis of it being sub-standard".
"Trying to apply for funding from banks was also a waste of time as one has to respond to many questions that were related to the possession of assets and investments to cede with in order to be considered".

5. Conclusion

Studies conducted on township tourism suggest that it is significantly important for the industry to create economic opportunities for residents in townships. Tourism is construed as a panacea and sector that plays an integral role in the contribution to shared growth in urban areas. Unfortunately in this paper findings revealed a contrast of what tourism is claimed to be doing in other townships of South Africa such Soweto and Cape Town as suggested by research of (Nemasetoni and Rogerson 2007). The above mentioned townships are portrayed as markets for both National and International tourists there by creating good economic opportunities for local residents. In contrast this study exposes that political and economic challenges stifle and retard the development of tourism in the Umlazi Township and there is absolutely no evidence that the residents get empowered through political interventions and financial institutions to be beneficiaries of tourism. There are only two viable tourism related businesses in the Township and strangely they are at close proximity and self-funded. In the whole, Umlazi Township is not a tourist destination as it is insignificantly lacking tourist attractions to be used as draw cards for other well off races that still regard Townships as unsafe places for entertainment. In fact safety and security is one of the main factors that make the Township unpopular to tourists. The majority of uMlazi residents are not getting any opportunities that are derived from tourism economic development and there are also contradicting and negative opinions

about kwa-Max Life style and Eyadini as major tourist attractions which are located within 5000 meters apart. The most residents around these two attractions regard them as a nightmare and an infringement to their rights. They cite uncontrollable parking and hooliganism in their area as manifestation of the two businesses as they are always packed into full capacity during weekends. On the other hand the demand for the two main tourist attractions is an indication of the short-supply of tourist attractions in Umlazi which is exacerbated by the inability of the emerging entrepreneurs to source finances through the intervention and support of the government, Ethekwini municipality and Tourism KwaZulu-Natal. This explicitly means if there is no proliferation of tourism businesses in the township there will also be no opportunities created for residents. Furthermore this paper indicates that there is a huge perceived gap in the market for creative tourism development in the Township of Umlazi that is situated in the south west of Durban in the coast of KwaZulu-Natal.

The present paradox attributed to challenges concerning efforts to direct tourism towards poverty reduction in South African townships is derived from the fact that socially, economically and politically beneficial forms of tourism depend largely on the ability of the municipalities and flexible laws to allow entrepreneurs and local residents to source finance to start small tourism businesses. Spenceley (2008) argues that sustainability tourism is thus largely depending on certain configurations of power, resource rights and governing authority that empower local groups of people, i.e. "the poor". The foremost implication of the political-economic state of affairs with respect to developing forms of tourism that significantly empower township residents is that efforts to link tourism with socio-economic development in Townships must take account of economic and political dynamics otherwise tourism will always be a missed opportunity for township residents. This paper also argues that local and national political dynamics over tourism economic developmental trajectory that impact, in many cases on poor communities are relatively ignored as a subject of tourism-related scholarship. Therefore the inferences deduced from the study are that very little is known about the critical political-economic dimensions on tourism development regarding the townships of South Africa, or in most of the African countries which are so influential in shaping both policy development and tourism outcomes on the ground. In spite of South Africa being known for having good policies, implementation has explicitly become a challenge. So the study asserts that the achievement of economic development to change the socio economic status of poor residents in townships through tourism will be extolled.

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The Impact of Consumer Animosity and Consumer Ethnocentrism on Intention to Purchase Foreign Products: The Case of Chinese Branded Household Appliances in Vietnam Market

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Abstract: Vietnam-China bilateral relationship has sharply declined due to the recent conflicts on both economic and political affairs. On top of that, the current controversial incident regarding the East Sea issue has constantly deteriorated the connection. At this critical time when the effects of consumers' attitude toward Chinese products could not be overlooked, the empirical study aims to investigate the impacts of Consumer Animosity and Consumer Ethnocentrism on Purchase Intention of Chinese branded merchandise with the mediating role of Consumer Judgment. Household appliance category is chosen because of the dominance of Chinese brands in Vietnam market. In addition to the assessment of Animosity effect on Purchase Intention, the research is designated to examine its antecedences, including Perceived Economic Hardship and Normative Influences as well as their influences on Animosity. Structural Equation Modeling was utilized to test the theoretical framework, analyzing the data from a sample of 349 consumers with diverse backgrounds. The results have demonstrated that only Perceived economic hardship manifest a significant impacts on Animosity. Meanwhile, Animosity and Ethnocentrism have negative relationships with both Chinese branded household appliances Judgment and Purchase Intention. Overall, the study provides specific discussion and recommendations for the Vietnam household appliances industry and at the same time points into various directions for further researches.

Keyword: *Consumer behaviors, Consumer Animosity, Consumer Ethnocentrism, Economic hardship, Normative Influences, Vietnam*

1. Introduction

In the contemporary society, international trade has become increasingly popular. Countless enterprises intend for oversea market expansion, in search of favorable opportunities for growth (Tragos, 1998). Thanks to the advance in technology and numerous recent free trade agreements, the geographical and cultural differences have been dramatically shortened (Marchant and Ward, 2003). The international trade creates considerable opportunities and challenges for multinational organizations. There are foreseeable benefits of a shift to a new market. Firstly, there is a substantial reduction in production cost. By applying standardized marketing strategies with minor adjustments or locating the manufacturing facilities at places where low labor costs are available, the company can enhance their products' competitiveness. Furthermore, exporting a product is vital when it has reached maturity or decline stage in its life cycle in the internal market (Jaffe and Nebenzahl, 2001). Turning to the other side of the argument, one greatest drawback known as free trade barrier is worthy to be mentioned. This hindrance could be divided into two main types: tariff and non-tariff barriers. While import tariffs have been reduced substantially, non-tariff barriers are inevitable and impossible to eliminate. In preceding consumer researches, animosity and ethnocentrism belongs to this group (Klein et al., 1998). Ethnocentrism can be defined as a tendency to buy domestic products and avoid buying foreign products whereas Animosity refers to emotional status in consumers toward a country of origin that lead to the denial of choosing that country's commodity.

For many decades and even centuries, China and Vietnam has had the bilateral relationship in international business. Vietnam imports a tremendous number of Chinese products for domestic distribution and usage. As a matter of facts, China remained Vietnamese largest trade partner. In the first ten months of 2013, Chinese import market reached 30.37billion of US dollar, which accounts for 28.5% of Vietnam's total import value of this year. In addition, Vietnamese trade deficit with China soared to 19.6 billion, increased continuously to 21.6 billion in November and peaked at 23.7 billion at the end of 2013 (Nguyen, 2014; General Statistic Office, 2013). According to this article, Chinese products are absolutely attractive due to its competitive prices. Chinese primary commodities that frequently come to Vietnam are chemical products, labor-intensive goods such as clothing, toys, as well as household appliances. Nonetheless, not long ago has China made a declaration on the ownership of the East Sea, also known as South China Sea called by the government

(Vietnamnet, 2014). In spite of the debate in controversy, it has provoked other countries which also share the sovereignty of and have benefits in the East Sea. Relevant countries have expressed their hatred toward China, including Vietnam (BBC, 2015). As a consequence, Vietnamese consumers have negative attitudes toward "Made in China" products, thus being reluctant to buy them (Phan, 2014). It can be seen that the disagreement over China's claims on the East Sea are the dominant source that intensify patriotic attitude and hostility toward China, thus resulting in the hesitation to purchase Chinese commodity. Having been mentioned above, these emotional factors are named as animosity and ethnocentrism respectively and have been adopted in earlier studies as a construct for predicting consumer behaviors in different circumstances (Klein et al., 1998; Ettenson and Klein, 2005; Shoham et al., 2006).

Within Vietnamese context, household appliances are chosen as an investigated product in this study. There are numerous reasons. First of all, this is an ordinary and fundamental range of necessities that is widely consumed in majority of households in Ho Chi Minh City. This reality enables us to conduct the survey on a larger scale and get much information from different perspectives. Moreover, China has been well-known for this category because of reasonable prices and acceptable quality. There are several currently available Chinese brands utensils in Vietnam market, such as Haier, Midea, TLC and many other unbranded one. In recent years before the incident, Chinese branded household apparatuses accounted for 40% of assortment displays in numerous electronic retailers in Vietnam. With that being said, Chinese manufacturers held a huge market shares in this division (Huong, 2014). In spite of their frequent usage, consumers truly concerns about the brand and origin of the household appliances, not only because of quality and price, but also due to the effect of the "Anti-China campaign". Under such circumstances, household appliances are indeed appropriate products for minimum response bias (Hong, 2008). Although a large body of researches on Animosity and Ethnocentrism has been conducted in many different contexts and countries, with different modifications, there remain various issues to be addressed in Vietnamese contexts. First of all, there are few papers on Vietnamese consumer behaviors toward purchasing Chinese merchandises and Vietnamese attitudes toward Chinese branded products. Secondly, due to the recent political and economic affairs between Vietnam and China, there is an urgent demand to administer this study as it proves to be beneficial for researchers and industry practitioners. For the above reason, it is necessary to analyze consumers' behaviors and attitudes at this moment, when the two countries' connection has become more intense.

2. Research Model and Hypotheses

Theoretical Background: From Huang et al's study (2010), two psychological theories is indispensable for the two antecedences of Animosity. Hence, the brief explanation is introduced as following:

- **Social Identity Theory** proposed the mental state of human beings in which they categorize themselves into the "in-group" and others in "out-group" (Turner, 1987). The social in-groups then define and demonstrate the traits of their distinctive identity and the appropriateness of their behaviors (Goar, 2007). By adjusting their acts accordingly, they can enhance their own image and self-esteem. To maintain their self-established group, they favor their groups, as well as reject the others (Hewstone et al., 2002; Verlegh, 2007).
- **Realistic Group Conflicts Theory** reported all individuals who considered themselves as in-group perceived that the out-group could threaten their survival (Levine and Campbell, 1972). These perceived harms obviously strengthen the "*feeling of membership, common identity, solidarity and cohesiveness within a group*" (Huang et al., 2010, p 913), and reinforce the negative bias to the others groups as a consequence (Correll and Park, 2005; Esses et al., 1998).

These two theories are appropriate to apply to the context of Vietnam as this country has witnessed several evidences identical to the statements. As a nation with high level of solidarity, Vietnamese people consider themselves as in-group. The perceived threat from China aggressive action has enhanced these attribute, and increased anger toward the country. 'Made in China' products has now been boycotted in Vietnamese markets as a result of these dreads. Therefore, these theories are proposed in order to identify the two predecessors of Animosity factor as well as Animosity itself.

Economic Hardship: Economic hardship factor has been defined as the perceived incapability to gain living basics, to meet financial obligations, to acquire growth in finances as a result of the reduction in expense or

the increase in income, and to believe in a brighter future in term of financial affairs (Barrera et al., 2001). The combination of *Social Identity Theory* and *Realistic Group Conflict Theory* inferred that the threats from the outsiders reinforce the fear of suffering from financial deprivation of the *"in-group"* (Shek, 2003). Consequently, the natives in the group would in turn express their hatred toward any objects belonging to the country which cause the perceived threats to them (Grant, 1991; Schmitt et al., 2003). In Klein et al.'s renowned paper in 1998, the Chinese consumers refused to purchase Japanese products, remembering the dreadful memories of economic hardship caused by the Japanese occupation in the past. Under homogenous circumstances, the first hypothesis in this study is proposed:
H1: Economic hardship positively affects Vietnamese Consumer Animosity toward China.

Normative Influences: Normative influence has appeared in various preceding researches on wide ranges of consumers' behaviors (Cohen and Golden, 1972; Bearden et al., 1989; Huang et al., 2010). Deutsch and Gerard (1955) defined normative influence in term of "*the motivation to blend in with a group's norms, characteristics and attributes"* (Huang et al., 2010, p. 914). Alternative definition by Burnkrant and Cousineau (1975) indicated normative influences as the impulse to adjust one's behavior to meet his/her surrounding expectation**.** Consumer studies divided the concepts into two categories: value expressive and utilitarian influences. On the one hand, value expressive reflects individual's desire to improve their image and self-esteem by referring to a group and generate motivation to adopt a behavior of another because that behavior satisfies their surrounding references (Park and Lessig, 1977; Price et al., 1989). On the other hand, utilitarian influence indicates the attempt to conform to the reference group's standard so as to achieve reward and avoid punishment (Park and Lessig, 1977; Bearden and Etzel, 1982; Price et al., 1989). Briefly, external influences from the surrounding neighborhood can alter a person behaviors, either to enhance themselves or to evade discipline.

Thanks to the correlation to people's mind set, the well-established concept of Normative Influence has been employed in several consumers' studies as a construct to measure their behaviors, such as their judgment and evaluation (Kassarjian and Robertson, 1981) or their decision making process (Deutsch and Gerard, 1955). With respect to buying behaviors, there are evidences showing the linkage of conspicuous consumption (Schroeder, 1996), the style of purchasing behavior with an attempt to demonstrate wealth and high social status (Eastman et al., 1999; O'Cass and McEwen, 2004). In other words, consumers paid more attention to their relevant reference when making any purchasing decision. In addition, Realistic Group Conflicts Theory suggests that the threat from the outsiders enhances the identity and solidarity within the in-group and consequently, resulting in the hostility to outer group that is perceived as the root of the threat (Huang et al., 2010). Individuals' judgment, evaluation and actions are usually influenced by the group they belong to, in order to keep themselves away from socially unacceptable thinking and actions (Wooten and Reed, 2004). It is reasonable to perceive that normative influence strengthens the enmity and lead to the depreciation and refusal to purchase hostile country's product is applied for a better value in their fellow's sight. Based on the scientific reasoning, the second hypothesis is formulated:
H2: Normative Influence positively affects Vietnamese Consumer Animosity to China.

Animosity: Consumer animosity is an essential construct that was taken into consideration in measurement and prediction of consumer behaviors in numerous previous researches (Klein et al., 1998; Nijssen and Douglas, 2004; Riefler and Diamantopoulos, 2007). As our review of the academic literatures, most of them adopted Klein's prevalent definition of Animosity (1998, p.90), which is: "*the remnant of antipathy related to previous ongoing political, military, economic or diplomatic events will cause a direct negative effect on consumers' purchase behavior in the international markets*". Alternatively, another definition from Averill (1982, as cited by Abraham, 2013, p.2) quoted that: "*Animosity is a strong emotion of dislike and hatred stemming from past or present military, political or economic aggression and actions either between nations or peoples that are perceived to be unjustifiable or as going against what is socially acceptable*".

Two scholars' definitions on animosity are considerably alike regarding to the primary meanings. Hence, animosity can be understood as people negative sentiments toward a country due to its aggressive manners in various aspects. Animosity consists of two main categories in accordance with the inducements. They are war animosity, which is the reaction to war provocative and impetuous activities, and economic animosity, which is likely to result from trade disagreement or economic dominance from another stronger country

(Klein and Morris, 1996; Hinck et al., 2004). Notwithstanding that Russell and Russell (2006) have placed special emphasis on the restriction of animosity definition to the past crucial occurrences; progressing incidents can actually trigger animosity (Tabassi et al., 2012). Past researches on Country-of-Origin reported that consumers focused on the provenance of the products as an instrument to evaluate that product. In consumers' perception, reputation of the country's name could be much more reliable than impartial information on characteristic (Hong and Wyer, 1990). Furthermore, two psychological theories mentioned in previous sections should be examined. While Social Identity Theory indicates that people would support their in-group and be favorable of it to any other "*out-group*", Realistic Group Conflict Theory anticipates the fear of sufferings and losses caused by an out-group creating negative bias toward these aliens, and apparently prejudices is dominant in consumers' appraisal of their item rather than objective assessment (Sherif and Sherif, 1979). Likewise, the homogenous hostility results in the reluctance and rejection to redeem product from infiltrating nations (Njissen and Douglas, 2004). In consequence, animosity toward the foreign counterparts negatively influences product judgment and purchase intention (Ettenson and Klein, 2005; Shoham et al., 2006; Verlegh, 2007). Although Klein denied the negative effect of animosity on quality judgment (Klein et al., 1998; Klein, 2002), Shoham et al. (2006) found that this relationship exists. Therefore, this paper proposed the two following hypotheses:
H3: Vietnamese Consumer Animosity to China negatively affects Chinese Product Judgment.
H5: Vietnamese Consumer Animosity to China negatively affects Intention to Purchase China goods.

Ethnocentrism: Another distinct construct applies in this paper is Consumer Ethnocentrism, which has been presented widely in multiple marketing papers (Shimp and Sharma, 1987; Klein et al., 1998; Pecotich and Rosenthal, 2001; Balabanis and Diamnatopoulos, 2004). It is defined in psychological as well as in consumer behavioral method. An original definition of ethnocentrism is "*the view of things in which one's own group is the center of everything, and all others are scaled and rated with reference to it*" (Sumner, 1906, p. 13). Shimp and Sharma (1987, p.280-9) defined ethnocentrism with respect to consumer viewpoint, being "*a belief held by consumers on the appropriateness and indeed morality of purchasing foreign-made products*". Implication can be made that consumers would favor any cultures that are analogous to their own, whereas reject any that is conflicting to their own culture (Adorno et al., 1950). To measure consumer ethnocentrism, Consumer Ethnocentric Tendencies Scale (from now preferred as CETSCALE) are applied. CETSCALE has been used in several studies with different contexts, from China, Russia to Turkey and Czech Republic (Balabanis et al., 2001; Klein et al., 2006). Most findings are the inverse links of the CETSCALE score and consumers' behavior in foreign-made products, judgment, willingness or intention to purchase, for instance (Shimp and Sharma, 1987; Netemayer et al., 1991; Sharma et al., 1995). The higher the score, the more ethnocentric consumer would be, and the higher tendency they are averse to imported products (Shimp and Sharma, 1987).

Upon our review of previous academic literatures, in ethnocentric consumers' perspective, buying products manufactured in other countries causes harms to their own economy, and increase unemployment rate. Hence, they boycott these oversea products regardless of various advantageous features of such products (Shimp and Sharma, 1987; Sharma et al., 1995; Evanschitzky et al., 2008). Ethnocentrism is constantly a vital actor in consumer's assessment, albeit the unavailability in domestic substitution (Nijssen and Douglas, 2004). Further, Sharma et al. (1995) found out and documented in their studies a belief of ethnocentric consumers that the redemption of exotic commodity involves with morality. Therefore, the construct carries the intention not to purchase such objects. Consequently, the construct has a negative causal relationship with consumers' behaviors on the purchase and evaluation of foreign products, which is identical to the reflection of the CETSCALE score (Olsen et al., 1993; Marcoux et al., 1997; Shoham and Brenic, 2003). This is a solid theoretical foundation for two next hypotheses:
H4: Consumer Ethnocentrism negatively affects Chinese Product Judgment.
H6: Consumer Ethnocentrism negatively affects Intention to purchase Chinese products.

The Distinction between consumer ethnocentrism and consumer animosity: Both of them are unique constructs and contain several differences. The essential point to mention is the context in which these construct can be applied. While Ethnocentrism can be applied in all country and culture, Animosity is context-specific (Klein et al., 1998; Abraham, 2013). However, both constructs are relevant in Vietnam context, not only because of the patriotism that has long manifested in the Vietnamese, but also owing to Chinese government's unreasonable action that aroused hostility amongst the people. Through the review of earlier

papers, this study figures out the inconsistent hypothesis and findings among different researches and scholars. The majority the animosity studies stated out that animosity would increase the level of ethnocentrism (Klein et al., 1998; Nijssen and Douglass, 2004). LeVine and Campbell (1972) said that the aggressive behaviors from another country would lead to negative attitude to objects related to that country, hence reinforcing ethnocentrism. Shankarmahesh (2006) also pointed out this relationship as "animosity might be generalized to consumer ethnocentrism. Nonetheless, other papers proposed and confirmed the inverse relationship, which indicates the impacts of Ethnocentrism on Animosity (Akdogan et al., 2012). Therefore, this research aims to examine whether the former hypothesis exist in Vietnamese context.
H7: Consumer Animosity to China positively affects Consumer Ethnocentrism

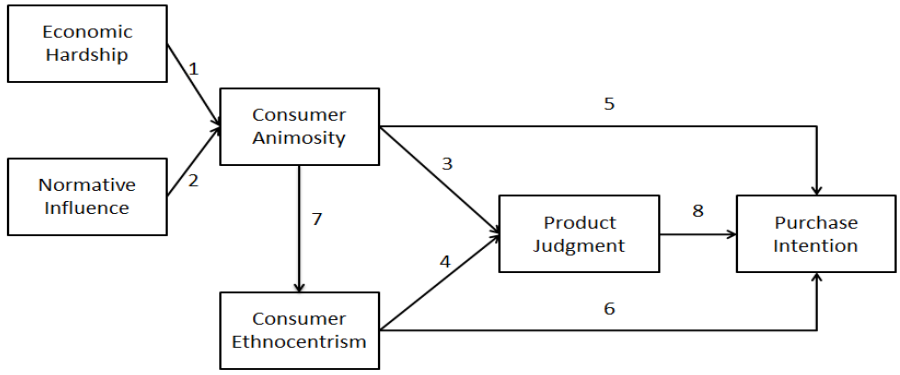
Product Judgment and Intention to purchase Chinese household Appliances: Product judgment regards to the attitude of consumers toward specific objects or products (Rezvani et al., 2012). When products are taken into account, the evaluation is influenced by both cognitive and affective perspectives. However, emotions often prevail over reasons and logics when it comes to purchasing behaviors. In other word, consumers' sentiments influence buying decision more significantly as emotions could lead to both mental and behavioral responses (Hansen, 2005). Animosity could result in foreign product underestimation as mentioned (Ettenson and Klein, 2005; Shoham et al., 2006). Purchase intention has received special attention in recent marketing studies. The simplest definition of "what we think we will buy" is from the paper by Park (2002). Purchase intention can also be defined as the *"the decision to act or psychological action that shows the individual's behaviors according to the products"* (Wang and Yang, 2008). Furthermore, purchase intention and attitude are not alike in that attitude is the evaluation of products while intention is the process of self-motivation to perform the purchasing action of individual (Ramadania et al., 2014). Ramadania et al. (2014) has mentioned the essential relationship between product judgment, through consumer attitudes, and purchasing behaviors. If judgment has not have such vital role in the final step of purchasing and owning the product, marketers and scholars would not pay intensive attention to it (Javalgy et al., 2005). In spite of Fishbein et al.'s declaration that the attitude toward merchandise does not strongly affect the behavior to purchase them (Fishbein and Aizen., 1975), other researchers have proven the positive relationship, especially with foreign products (Javalgy et al., 2005). Mowen and Minor (2002) stated that the actual behavior consists of all other behavior "*to own, use and dispense*" the products (Ramadania et al., 2014). Therefore, spiritual influences such as judgment and feelings are assumed to affect the willingness to purchase, as well as the willingness to use and dispense a product. Previous researches on Animosity and Ethnocentrism has also established the relationship of the factors and Purchase intention, in which Product judgment play a role of a mediator (Klein et al., 1998; Nguyen et al., 2008; Huang et al., 2010). From the result of these studies, it is reasonable to propose the last hypothesis:
H8: Chinese Product Judgment positively affects Intention to Purchase Chinese Product.

3. Methodology

Instrument development: The proposed model of this study consists of 6 constructs, each of which was measured carefully by multiple items adopted from previous paper. Economic hardship factor was set up from particular terms in Barrera et al.'s study (2001). Normative Influences were adapted from Bearden et al. (1989). Consumer Ethnocentrism was constructed based on to the CETSCALE of Shrimp and Sharma (1987). Animosity was built according to the study of Klein et al. (1998) and Klein (2002). Lastly, Product Judgment and Purchase Intention were adapted from Klein et al. (1998), who credited Darling and Arnold (1988), Darling and Wood (1990), Wood and Darling (1993) and Han (1988) for using their questionnaire references. The questions are modified to be appropriate for Vietnamese context and examined by 20 consumers in a pilot test to detect weaknesses before the primary fieldwork. All questions are 5 point Likert-scale multiple choices, from strongly disagree to strongly agree. The questions were attached in the appendix.

Research Model: The proposed research model is hypothetically developed as follow:

Figure 1: Proposed Model (Klein et al., 1998, Huang et al., 2010)



Sampling and Data collection

Consumers with following criteria will be investigated:

- Consumer who is more than 18 years old.
- Consumer who lives in Ho Chi Minh City for at least 3 years.
- Consumer who has intention to purchase household products within 6 months

To specify the appropriate sample size, a formula designed by Tabachnick and Fidell (1996) is used to calculate the necessary number of respondents based on the number of items in the questionnaire. The formula is as follow: ***Y= 8X+50***

With Y as the necessary number of respondents and X as the number of items in the questionnaire. The questionnaire contains a total of 32 items. As in the formula, the appropriate target sample should be equal or more than 306. This study summarizes a 349-respondent sample.

Table 1: Sample profile

	Number	Percent
Gender		
Male	136	39%
Female	213	61%
Age		
18-24	136	39%
25-30	117	33.5%
31-45	79	22.6%
> 45	17	4.9%
Educational level		
High school Level	47	13.5%
College Level	83	23.8%
Bachelor Level	211	60.5%
Master/Doctor Level	8	2.3%
Product Usage Experience		
None	128	36.7%
Few (1-3 products)	153	43.8%
Many (more than 3)	68	19.5%

In the respondent profile, there are 136 male and 213 female, which account for 39% and 61% respectively. As household appliances are ordinary products, there is no restriction on age beside the aforementioned criterion. There are four groups of age in this survey: 18-24, 25-30, 30-45, and more than 45. Explicitly, the range of 18-24 seizes the highest percentage, 39%, which is followed closely by 25-30 categories, 33.5%. In contrast, only one-fifth of the total consumers fall in the range 30-45. Most of our respondents lie in Bachelor level, with more than 60%. College level comes in the second places with much lower percentage, 23%. With

respect to Chinese Household appliances product usage experience, respondents who have owned and used these products occupy a large proportion, approximately 63%. On the other hands, individuals who have never owned a Chinese appliance are nearly one-third of the total respondents.

4. Data Analysis and Finding

Table 2: Cronbach's alpha value

Variable	Cronbach's alpha	Number of items
Normative Influence	0.735	5
Economic Hardship	0.890	6
Animosity	0.758	4
Ethnocentrism	0.795	6
Product Judgment	0.789	5
Purchase Intention	0.860	5

Table 3: Exploratory Factor Analysis Pattern Matrix

	Factor					
	1	**2**	**3**	**4**	**5**	**6**
H2	.835					
H1	.793					
H4	.777					
H5	.765					
H3	.758					
H6	.655					
PI2		.824				
PI1		.783				
PI4		.744				
PI3		.722				
PI5		.601				
ETH3			.725			
ETH5			.698			
ETH2			.683			
ETH1			.595			
ETH4			.568			
PJ2				.772		
PJ1				.755		
PJ3				.727		
PJ4				.607		
NI3					.679	
NI4					.633	
NI1					.566	
NI2					.562	
NI5					.558	
A5						.778
A2						.654
A3						.649
A4						.570

This study applies four procedural tests, utilizing 2 statistical computer softwares, SPSS 20 and AMOS 20. First of all, the reliability of the data set is tested and the exploratory factor analysis is run to examine the

factor classification of the data. After that, confirmatory factor analysis (CFA) is used for validity and model fitness testing and lastly, structural equation modeling (SEM) is utilized to test the proposed hypotheses. In the reliability test, alpha value must be higher than 0.7, showing the internal consistency of the data (Table 2). In the Exploratory factor analysis, item loadings should be higher than 0.5. Items with either low loadings or cross loadings are required to be removed. In this study, the deleted items are PJ5 and ETH6 (Table 3). For the next step, confirmatory factor analysis is applied with an attempt to test the reliability and validity of the data. The usually tested validity consists of Convergent Validity and Discriminant Validity. While convergent validity indicates how each items represent for its factor, Discriminant Validity demonstrate the distinctiveness between the each factors. Table 4 demonstrates the standardized factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR) of the factors, which are the statistical requirement for Convergent validity. Although Bagozzi and Yi (1988) suggested that CR must be higher than 0.7 and AVE must be higher than 0.5 so that convergent validity can be achieved, Fornell and Larcker (1981) shown evidence that if AVE is less than 0.5 and the composite reliability is higher than 0.6, convergent validity of the construct is still assured. Noticeably, that data meets the requirements of the convergent validity test (Table 4). With regard to discriminant validity, the same author proposed the square root of AVE should be larger than the its correlation coefficients with other factor (Fornell and Larcker, 1981), and this validity is also accomplished (Table 5). For the model fitness, it is obvious that all imperative threshold is satisfied (Table 6). Structural Equation Modeling confirms that all hypotheses are approved, except for the hypothesis H2, between Normative Influences and Animosity (Table 7).

Table 4: Convergent Validity-CFA

Factor	Items	Item loadings	AVE	CR
Economic Hardship	H1	.725	0.565	0.886
	H2	.757		
	H3	.792		
	H4	.785		
	H5	.792		
	H6	.649		
Normative Influence	N3	.640	.432	.690
	N4	.779		
	N5	.529		
Animosity	A4	.994	.615	.741
	A5	.491		
Ethnocentrism	ETH3	.752	.521	.765
	ETH4	.759		
	ETH5	.650		
Product Judgment	PJ1	.795	.507	.804
	PJ2	.726		
	PJ3	.688		
	PJ4	.630		
Purchase Intention	PI1	.639	.607	.859
	PI2	.747		
	PI3	.865		
	PI4	.844		

Table 5: Discriminant Validity-CFA

NI	H	PI	ETH	PJ	A
0.657					
-0.050	0.752				
-0.057	-0.198	0.779			
0.083	0.191	-0.444	0.722		
0.144	0.128	0.328	-0.250	0.712	
0.026	0.211	-0.426	0.325	-0.285	0.784

Table 6: Model fitness-CFA

	CMIN/df	GFI	TLI	CFI	RMSEA
Criterion	<2	>0.9	>0.9	>0.9	<0.05
Score	1.841	0.902	0.937	0.938	0.049

Table 7: Hypothesis testing-SEM

Hypothesis	p-value	Structural Equation Modeling
H1: Economic hardship -> Animosity	.005**	Supported
H2: Normative Influences -> Animosity	.516	**Not Supported**
H3: Animosity -> Product judgment	.003**	Supported
H4: Ethnocentrism -> Product Judgment	.017*	Supported
H5: Animosity -> Purchase Intention	***	Supported
H6: Ethnocentrism -> Purchase Intention	***	Supported
H7: Animosity -> Ethnocentrism	***	Supported
H8: Product judgment -> Purchase Intention	.006**	Supported

Discussion: First of all, among the two independent antecedences of Animosity, only Economic Hardship has significant impact. The situation is identical to Huang et al. (2010). Given some recent development, Vietnam is still a developing country at the moment. Obviously, the perceived hardship exists in Vietnamese people' minds. This threat of financial deprivation is strengthened as people believed that China and its action are the cause. This is the reason why hypothesis *H1"Economic hardship positively affects Vietnamese Consumer Animosity toward China"* is approved with a very good significant value. In contrast, Normative Influences do not have considerable impacts like Economic hardship. In Vietnamese situation, people do pay attention to surrounding public eyes, but to some extent only. Regarding to the feeling toward China and the purchasing behavior of Chinese products, reference groups have marginal effects. Meanwhile, all other hypotheses from the original models of Klein et al. in 1998 with two added hypotheses adapted from later literature are all supported. The results are similar to that of previous researchers (Witkowski, 2000; Klein, 2002; Nijssen and Douglas, 2004).

Both hypotheses *H3-"Vietnamese Consumer Animosity to China negatively affects Chinese Product Judgment*" and*H4 –"Consumer Ethnocentrism negatively affects Chinese Product Judgment"* are well supported. This indicates that both antipathy toward China and the feeling of Ethnocentrism affect the assessment of Chinese products. Two constructs affect differently, but both result in Chinese product underestimation. While animosity leads to the depreciation of objects related to its sources, ethnocentric consumers value domestic products much more than foreign countries' one. Remarkably, the hypothesis that is denied in paper of Klein et al. (1998), H3, is justified in this study. This current result is identical to Shoham et al.'s study in 2006, previously mentioned in the review of literature. Likewise, hypotheses *H5-"Vietnamese Consumer Animosity to China negatively affects Intention to Purchase China goods"* and *H6 –"Consumer Ethnocentrism negatively affects Intention to purchase Chinese products"* are substantiated by their significant values, indicating the direct negative relationship of Animosity and Ethnocentrism on intention to purchase Chinese products. In other words, these two psychological factors play a crucial and dominant role in Vietnamese consumers' intention when it comes to purchasing Chinese household appliances.

The hypothesis *H7- "Consumer Animosity to China positively affects Consumer Ethnocentrism"* is robustly supported. The feeling of antipathy could be generalized into ethnocentrism. Vietnamese consumers who express their hatred toward China due to the political and economic issues will reject Chinese household appliances and use Vietnamese products instead. This served as a brief explanation for this hypothesis. Lastly, hypothesis *H8 –"Chinese Product Judgment positively affects Intention to Purchase Chinese Product"* is confirmed as significant. Clearly, the judgment of one product is positively related to the intention to buy and own them. The better the judgment is, the higher the intention would be.

5. Recommendation and Direction for Further Study

For Chinese Electronic Household appliances suppliers: In other to operate in Vietnam market, Chinese organization should realize the high level of Animosity in Vietnamese consumers. Animosity is considered to be a threat to an international firm originating from a country that has controversial issue in political, economic or military aspects with the export nation. With appropriate recognition on the current affair, marketing managers are required to develop master plans to deal with this potential hazard. The primary strategy is to arrange an in-depth marketing research to measure the negative bias. In the recommended study, demographics and geographic information should be included as the perception of hostility may vary among different backgrounds and regions. For example, people in rural and urban areas may have diverse viewpoints regarding attitudes toward China and purchasing behaviors of its products. With detailed statistics, they can tailor their strategies to reduce such impacts and thus increase market shares and profits. When it comes to animosity and ethnocentrism, ordinary techniques of marketing such as advertisement and promotion may become ineffective. Marketers could consider the following thoughtful insights given by this research or relevant studies.

The first scheme is to directly address the animosity issues. The combination of intensive public relation and communication instruments is indispensable in the attempt to change consumers' perception and prejudice. The communication campaign should emphasize that the products and the brand does not involved with the current incident. Since the diplomatic issues are recent, the strategy could become even more advantageous (Klein et al., 1998). In addition, the effects of Economic Hardship on Animosity should not be overlooked. Perceived deprivation transforms into Animosity toward China as Vietnamese citizens believe that China is a prime inducement of East Sea's instability. Manufacturers could use the similar method to inform consumers that using Chinese electronic household appliances generates no detrimental impacts to Vietnamese economy and society. Doing so, manufacturers can also reduce the negative sentiments of Chinese products in ethnocentric consumers. Additional fruitful approach embraces Chinese manufacturer's facility relocation to and manufacture household appliances in Vietnam. The process enables the producer to create hybrid products, which provides marketers with the flexibility in coping with the influences of consumer animosity related to product origin (Levin and Jasper, 1996). In fact, many Chinese household appliances suppliers have invested their own manufactory in Vietnam. However, their promoting activities do not take advantages of this reality. The brand name could be altered by placing the term "made in Vietnam". Consequently, the company can utilize consumer Ethnocentrism to gain more sales and capture more market shares while minimizing preconception from hostile users. Last but not least, segmentation of target consumers into groups with distinctive attributes that do not strongly harbor antipathy is one essential step. Although the majority of Vietnamese consumers hold hostility toward China, the level of animosity actually differs. Therefore, spotting out a group of consumers whose levels of animosity are not high enough for them to abandon Chinese appliances and adjust marketing strategies to meet their desires is another plausible strategy that should be taken into consideration.

For Vietnamese Electronic Household Appliance Manufacturers: For local marketing managers, this study gives suggestions on brand positioning strategies. As Ethnocentrism can be transferred into negative bias toward foreign products, this can be utilized as a "powerful weapon" to fight in the arena where international trade continuously increases. Vietnamese products quality is incomparable to those of developed countries in consumers' mindset (Nguyen & Nguyen, 2004). Thus, instead of focusing only on product attributes, a strategy that emphasizes ethnocentric attitudes in purchasing the product shines. Local managers should take advantages of ethnocentrism to increase market shares and profit. "Buy Vietnamese" is a very suitable strategy to be used.

For Vietnamese retailers: Most of the electronic household appliances reach consumers through intermediary retailers. Therefore, the findings of this study are beneficial to the retailer practitioners. Being aware of the effects of Animosity on consumers, the mangers should carefully consider whether to import Chinese branded household appliances and to put it on assortment display. If the necessity of importing Chinese branded products is in place, the brand names and the suppliers should be taken into thorough consideration. The retailers should choose hybrid appliances that are manufactured in Vietnam in order to utilize consumer's Ethnocentrism while minimizing the impacts of Animosity. They can implement some

previously mentioned strategies to promote their products in cooperation with the manufacturers. Chinese branded appliances has a big advantage on price and an acceptable quality, which they should emphasize on their advertising. In addition, they should highlight that the products is manufactured in Vietnam, therefore deemphasizing the brand real origin as well as triggering ethnocentric belief. If the demand for Chinese branded household products is not high, the retailers should choose Vietnamese brands for the above reason. Ethnocentrism could be exploited to enhance sales and profit.

Theoretical Implication: The study confirms the Animosity model for foreign product purchase in a context when there are recent controversial issues. While preceding research concentrates on past events as a source of Animosity, this paper proves that progressing events can still trigger Animosity. Animosity and Ethnocentrism affects purchase intention directly and indirectly, through Product Judgment. Moreover, a hypothesis between Animosity and Product Judgment, earlier denied by Klein et al. (1998), is justified in this study. This research also investigates the antecedences of Animosity, which previous papers lack. The findings can contribute humbly to the academic field of Animosity and Consumer behaviors.

Suggestion for Further Study: Although the research put best effort in covering all aspects regarding to Animosity model, there are some limitations which are needed to be clarified. Further study should consider these drawbacks to have a fuller understanding of Animosity in Vietnamese context. Firstly, it is administered within Ho Chi Minh City only. As a result, its finding can only be applied to Ho Chi Minh City. There are many differences among distinctive regions. For instance, there are enormous distances in consumer behaviors between the rural and the urban area. To fully understand the effect of Animosity and Ethnocentrism to purchase intention in Vietnam, multi-regional research should be carried out. Secondly, the research is centered on Chinese branded household appliances. Other researches could try a new category of products to see if the findings differ. Thirdly, the research finds no relationship between Normative Influences and Animosity. Nonetheless, this study infers that Vietnam possess a collectivism culture. Thus, this research suggests further researches should spend times on design a better set of questionnaires and pretest the model to see if the proposed hypothesis really exist. Lastly, the research exercises only in quantitative method. The results might not be interesting enough. However, due to the shortage of time, labor and budget, qualitative research cannot be implemented. Later study can conduct qualitative methods (focus group and in-depth interview, to name a few) to contribute more attractive findings.

Appendix:

Economic Hardship:
The family standard of living is reduced over the coming 3 months.
My family suffers from difficulty in paying different spending household bills.
I feel I have to reduce the money spent on clothing over the coming three months.
I feel I have to reduce the money spent on food over the coming 3 months.
I have less money leftover at the end of the months in the coming 3 months.
I have to add another job to make end meets.

Normative Influence:
It is important that others like the products (and brands) I buy
I like to know what products (and brands) make good impressions on others.
I achieve a sense of belonging to the society by purchasing the same products (and brands) they purchase.
I often feel identical with other people by purchasing the same products (and brands) they purchase.
When buying products, I generally purchase those brands that I think others will approve of.

Consumer Animosity:
My attitude toward China is
I feel angry toward China because of national issues (the East sea issue and the other economic issues)
In general, the Chinese is doing business unfairly with Vietnam. China is not a reliable trading partner.
I cannot forgive China for placing the oil rig in Vietnam territory as well as attacking Vietnamese fishermen and navy soldiers.

Consumer Ethnocentrism:
Vietnamese products, first, last, and foremost.
A real Vietnamese should buy Vietnamese products.
Buying foreign products is not a correct activity for Vietnamese.
Buying foreign products damages local businesses.

We should purchase products manufactured in Vietnam instead of letting other countries get rich off of us.
We should buy from foreign countries if and only if those products that we cannot obtain within our own country.

Chinese Branded Product Judgment:
Chinese household appliances are carefully produced and have fine workmanship

Chinese household appliances made in China are generally of a higher quality than similar products available from other countries
Chinese Household appliances show a very high degree of technological advancement
Chinese household appliances usually show a very clever use of color and design.
Chinese household appliances are usually a good value for the money.

Chinese Branded Product Purchase Intention:
If buying a household appliance, I will not buy a Chinese one.
Whenever possible, I avoid buying Chinese household appliances.
I would feel uncomfortable if I bought a Chinese household appliance.
I do not like the ideas of owning Chinese household appliances.
If two appliances were equal in quality, but one was from other countries and one was from China, I would pay for the product not from China

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An Interaction between Firm Strategy, Capital Structure and Firm's Performance

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Abstract: The study tries to determine the association among corporate strategy, social structure and firm performance. In this regard, the monetary reports of 78 companies listed in Karachi Stock Exchange since 2007 to 2014 were scrutinized. In this research, firm strategy (sales growth, liquidity) and capital structure (debt ratio) were used as sovereign variables, and firm performance (return on equity, return on assets, free cash flow for the firm, free cash flow per share) were functional and are used as dependent variables, so to study the affiliation between corporate strategy, capital structure and firm performance within a 8-years period from 2007 to 2014. Secondary data has been used to test the hypotheses; single variable linear regression method was used and their significance was evaluated using Statistics T (t-test) and F (Fisher). The study results indicate that there is a significant positive relationship between sales growth variables and two types (among four types) of performance criteria in the study, namely return on equity and return on assets. And there is a positive significant relationship between firm liquidity and three criteria of firm's performance in the study namely return on equity, free cash flow per share and return on assets. Also, debt ratio has a positive significant relationship with free cash flow for firm and a negative significant relationship with return on assets.

Keywords: *Capital Structure, Corporate Strategy, Liquidity, Firm Performance, Free Cash Flow for Firm*

1. Introduction

Firms to develop and grow require financial resources, and decision making regarding using different financial resources and determining a sufficient capital structure which maximize stockholders wealth is considered as a one of the most significant issues encountered by managers. Nowadays, credit rating of firms depends largely on its capital structure, and in fact the basis for the production and the delivery of service depend mainly upon supplying and using funds (Mires et al., 2001). Notably, the social structure of each firm is an initial precaution in connection with its financial problems, and in corporate strategic planning, it is necessary to determine the factors influencing the efficacy of their financing. Firms nowadays work in an increasingly developing and competitive environment. To survive, they are forced to deal with many national and international competing factors and to develop their activities through new investments. The significance of capital structure attracted more attention since the studies conducted by Modigliani and Miller (1958). They believed that there is no difference between financing through return on equity and debt considering firm value. Therefore, different methods of financing have no extra value for firm, and there is no limitation for manager. But experimental evidences showed that the above issue does not practically exist and Modigliani and Miller (1961) indicated new results, and the significance of firms' social capital was determined more than before (Onaolapo & Kajola, 2010). Key point for firm performance is firm strategy formula and executive decisions (Miller & Rock, 1985). The present study attempts to investigate the relationship between firm performance by using two variables, namely corporate strategy (sales growth strategy and liquidity) and social capital.

2. Literature Review

Strategic thinking is considered an undeniable prerequisite to management in the third millennium. Increasingly changing and wonderful evolutions in all commercial and economic aspects indicate a taking privilege of a strategic thinking. To effectively formulate strategies, financial strengths and weaknesses of each firm must be determined. Liquidity, loan amount, flowing capital, profitability, efficient use of assets, cash flows and return on equity must be in a way that some strategies discarded. Regarding the effect of strategy on performance, it could be said that return on equity could be regarded as a linear function of assets growth, sales growth, growth potential and liquidity, which assets growth has the maximum effect on stockholders salary yield rate and sales growth, growth potential and liquidity has the minimum effect (Muneer et al., 2011). Whatever the recent strategic and financial performance of the company is better, a

well-designed and well-executed strategy more likely exists. Weak strategic and financial performance is a sign of the existence of a weak strategy or inefficient administration of strategy or both of them (Khalili et al., 2011). Literature on strategic trends considers strategy from three aspects: descriptive approach, classification approach and adaptive approach (Manian et al., 2009).

Evolution of Strategy Paradigm: Phase 1: financial planning, Phase 2: planning based on prediction, Phase 3: planning based on external environment, Phase 4: strategic-phase management, Phase 5: strategic thinking

Different Theories on Firm Capital Structure

A. The theories associated with the choice between debt and equity

- traditional theory
- Modigliani and Miller Theorem
- The theory of the hierarchy of financing options 1
- Theory of Static equilibrium: A) representation theory B) firm control C) debt tax saving benefits and the expenses of its financial turmoil D) capital market timing

B. Theories associated with the choice between public and private debts

- information asymmetry theory
- debt representation costs
- re-negotiations
- management discretion

One criterion to select investment opportunities is firms' financial performance which is influenced by different factors. One of the most significant motivations of investors to enter capital market is to achieve an appropriate yield and consequently increase in the wealth of stockholders (Muneer et al., 2012). The success of corporate strategies can be reflected in its performance and firm performance could be regarded as the firm success in creating values for different parts of market, but the performance of commercial firms is determined based on access to business objectives and using different units of such firms. In today's increasingly changing and complex environment, firms need to design and adapt strategies that enable them to improve increasingly their performance. Because in such an environment, the firms are able to survive that maintain their proactive and match with dynamic and variable situation of today's competitive market (Kaplan & Norton, 1996; Muneer & Rehman, 2012). Studying the performance of Pakistani firms, it is possible to observe varying and controversial trend of the growth and rate of return on investment over the ten past years. Meanwhile, experts consider the potential of the present firms in Pakistan capital market in terms of performance higher than its reported rate. In fact, the main obstacle to improve the performance of firms is the selection of the most efficient and optimal strategy considering organization features, which such strategies has been reported as the most significant challenge to recent investigations and studies (Saeed, 2009: Muneer et al., 2013).

The results from studies conducted have led to following four approaches regarding performance criteria"

- Accounting approach: in this approach, the values included in financial statements such as profit, profit per share, operational cash flows, return on assets and return on equity to evaluate performance are used (Rajatavanin, R., & Venkatesh, 2007).
- Economic approach: based on this approach in which economic concepts are used, the performance of commercial unit is evaluated by underlining profitability, firm assets and considering return rate and capital cost rate (Anvari et al., 2003). Economic value added, modified economic value added and market value added are categorized in this group.
- Integrated approach: in this approach, a combination of accounting and market information to evaluate performance is applied such as Tobin's q ratio and price/earnings ratio (Malekian and Asgari, 2006).
- Financial management approach: according to this approach, financial management theories such as Capital Assets Price Making Pattern (CAPM) and concepts such as risk and return are predominantly used. The approach mainly focuses on extra yield in each share (Rajatavanin & Venkatesh, 2007).

Li et al. (2009) conducted a study on capital structure. In a part of this study, ROA (return on asset) and ROS (return on sale) were used as criteria and it was concluded that there is a negative and agreeable relationship between financial performance and leverage and short time debts ratio. Therefore, Chinese firms less use short time debts. Hong tom Ong et al., (2011) concluded that liquidity strategies are not significantly related to firm performance. If managers attempt to consider firm performance, they must not waste their time to raise liquidity. Instead, they must focus on management and they concluded that capital structure influences overall performance of firms. Setaiesh & Kashanipoor (2010) came to this conclusion that about 49% of the changes in firms' capital structure were influenced by variables such as equity cash benefit, profitability, business risk, assets structure, liquidity, the size and growth of firm. Among them, two variables, namely firms' liquidity and growth had negative effect and other variables had positive effect on capital structure. Saeed (2009) came to this conclusion that about 95 % of changes in capital structure are explained through rate of return on assets, firm size, market value to book value of return on equity, net assets, machinery and equipment, and standards of Corporate Governance System.

3. Methodology

The study statistical community is composed of the companies listed in Karachi Stock Exchange. The study statistical sample includes financial information of exchange stock firms since 2007-2014 which using a series of sample conditions, 78 firms were selected in 8 years, among firms listed on Karachi Stock Exchange.

Data Collection

- Information on research literature and theoretical basics are collected using a library-based method and compiled from Persian and English books and foreign specialized magazines
- Information in the second section is related to the firms listed in Karachi Stock Exchange which their financial information and relevant explanatory notes from 2007 to 2014 must have been provided and we collected them from Karachi Stock Exchange website.

Data analysis: In the present study, SPSS software was used to analyze data and to assess the effects of variables, single variable and correlative and linear regression statistical tests was applied.

Descriptive Statistics: in this method, some tables are presented and descriptive statistics measures such as central and scattering indices are applied to describe the study data, in turn, the issue becomes more transparent.

Calculating Central Indices: In this study, given that the measurement scale is quantitative, average is used. In addition, the maximum and minimum values of variables are determined in this stage.

Calculating scattering indices: scattering indices are different from central indices. They show the amount of scattering or changes between data of a distribution**.** In the present study, standard deviation is used. Table 1 shows the results from central and scattering indices**.**

Table 1: The Study Data Descriptive Analysis

Variable	Abbreviation	The number of Observations	Mean	Standard Deviation	Minimum	Maximum
Return On Assets	ROA	610	0/159	0/103	0/011	0/54
Return on Equity	ROE	610	0/423	0/231	0/006	1/47
Liquidity	LI	610	0/064	0/071	0/002	0/57
Sales Growth	SG	610	0/191	0/240	-0/59	1/08
Free Cash Flow Per share	FCFe	610	/86 -316	110/11	-464/39	246/15
Debt Ratio	DR	610	0/603	0/194	0/006	0/91
Free Cash Flow for the Firm	FCFF	610	0/154 -	0/296	-2/32	1/181

Based on the results from descriptive statistics including scattering and central indices, the standard deviation of most variables except for free cash flow per share was lower, which indicates that data has been scattered in a small area about the mean.

Inferential statistics: 1-3-4 variables normality test: in this phase, Kolmogorov - Smirnov test is used to check whether the sample has been obtained from a population with a normal distribution or not.

Table 2: Results of Kolmogorov – Smirnov Test

Description	Abbreviation	Z Statistics	P-Value
Return On Asset	ROA	**1/130**	**0/071**
Return On Equity	ROE	**1/101**	**0/084**
Liquidity	LI	**3/818**	**0/010**
Sales Growth	SG	**1/070**	**0/097**
Free Cash Flow Per Share	FCFe	**1/073**	**0/091**
Debt Ratio	DR	**2/592**	**0/001**
Free Cash Flow for the Firm	FCFF	**1/007**	**0/092**

Table 3: Correlations between Variables

Variable	Abbreviation	ROA	ROE	LI	SG	FCFe	DR	FCFF
Return on Asset	ROA	1						
Return on Equity	ROE	0/671 0/000 sig	1					
Liquidity	LI	0/360 0/000 sig	0/144 0/000 sig	1				
Sales Growth	SG	0/204 0/000 sig	0/202 0/000 sig	0/050 0/220 sig	1			
Free Cash Flow Per Share	FCFe	0/087 0/033 sig	0/058 0/156 sig	0/090 0/048 sig	-0/041 0/316 sig	1		
Debt Ratio	DR	-0/317 0/000 sig	0/070 0/082 sig	-0/109 0/087 sig	0/071 0/071 sig	-0/016 0/702sig	1	
Free Cash Flow for the Firm	FCFF	0/099 0/014 sig	0/112 0/006 sig	0/046 0/260 sig	-0/016 0/686 sig	0/564 0/000sig	0/082 0/043 sig	1

The (K-S) test indicates that the study dependent variable scattering and also some independent variables follow a normal distribution.

In this study, in order to determining correlation between quantitative variables, Pearson correlation is used which the matrix of correlation between variables has been presented in Table 4. Based on the Pearson correlation coefficient between sales growth and return on equity which 0.202 at a significance level of 5% and also sig in Table 000/0, it could be concluded that there is a significant relationship between sales growth and return on equity. The second secondary hypothesis in the study indicates that there is a relationship between sales growth and free cash flow per share. Based on the Pearson correlation coefficient between sales growth and free cash per equity which shows -0.041 in the significance level 5%, it could be concluded that there is a negative relationship between sales growth and free cash flow per equity, but according to sig in Table 3 which is 0.316, such conclusion cannot be obtained. All the hypotheses are interpreted as above.

Hypotheses Testing Results: In this part, based on the study hypotheses which are composed of main and secondary hypotheses, the hypotheses are tested. There is a relationship between sales growth and firm

performance. To test the first hypothesis, eight secondary hypotheses have been proposed which are based on four types of performance criteria and test the effect of firm strategies on its performance. According to the first hypothesis: there is a relationship between sales growth and return on equity. In order to test the first secondary hypothesis, this model has been used:

Table 4: Results of the First Secondary Hypothesis Test

Variable	β	(β **Coefficient**	**t Statistics**	**P-Value**
Constant Value	α	**0/386**	**32/65**	**0/000**
Sales Growth	β_1	**0/195**	5/07	**0/000**
Total Regression Model	Statistics F **25/69**	P-Value **0/000**	**0/141** R^2 =**0/109**= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the first secondary hypothesis test presented in Table 4, the significance level of F Statistics (0.000) is below the acceptable level of error (5 percent) and the whole of the regression model is significant. Based on the insignificance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicated that sales growth has a significant and positive impact on return on equity. Therefore, the first hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the variable entered in the regression model can explain 14% of the variability of the dependent variable. According to the second secondary hypothesis there is a relationship between sales growth and free cash flow per share. To test the second hypothesis, the following model is used:

Table 5: Results of the Second Secondary Hypothesis Test

Variable	β	(β **Coefficient**	**t Statistics**	**P-Value**
Constant Value	α	-78/86	-12/62	**0/000**
Sales Growth	β_1	-20/46	-1/003	**0/316**
Total Regression Model	F Statistics **1/007**	P-Value **0/316**	**0/002** R^2 =**0/000**= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the second secondary hypothesis test presented in Table 5, the significance level of F Statistics (0.316) is below the acceptable level of error (5 percent) and the whole of the regression model is not significant. Based on the insignificance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicate that sales growth has no impact on free cash flow per share. Therefore, the second hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the independent variable entered in the regression model cannot explain the variability of the dependent variable. According to the third secondary hypothesis there is a relationship between sales growth and return on assets. To test the third hypothesis, the following model is used:

Table 6: Results of the Third Secondary Hypothesis Test

Variable	β	(β **Coefficient**	**t Statistics**	**P-Value**
Constant Value	α	0/142	26/866	**0/000**
Sales Growth	β_1	0/088	5/111	**0/000**
Total Regression Model	F Statistics 26/120	P-Value **0/000**	**0/410** R^2 =**0/041**= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the third secondary hypothesis test presented in Table 5-3, the significance level of F Statistics (0.000) is below the acceptable level of error (5 percent) and the whole of the regression model is significant. Based on the insignificance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicate that sales growth has a significant and positive impact on return on assets. Therefore, the third hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the independent variable entered in the regression model can explain 4 % of the variability of the dependent variable. According to the fourth secondary hypothesis there is a relationship between sales growth and free cash flow for the firm. To test the fourth hypothesis, the following model is used:

Table 7: Results of the Fourth Secondary Hypothesis Test

Variable	β	(β **Coefficient**	**t Statistics**	**P-Value**
Constant Value	α	-0/153	-9/935	**0/000**
Sales Growth	β_1	-/020	-0/404	**0/686**
Total Regression Model	F Statistics	P-Value	**0/160** R^2 =**0/000**= AdjR^2	
	0/163	0/686	The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the fourth secondary hypothesis test presented in Table 7, the significance level of F Statistics (0.000) is above the acceptable level of error (5 percent) and the whole of the regression model is not significant. Based on the significance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicate that sales growth has no impact on free cash flow for firm. Therefore, the forth hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the independent variable entered in the regression model can explain the variability of the dependent variable. According to the fifth secondary hypothesis there is a relationship between liquidity and return on equity. To test the sixth hypothesis, the following model is used:

Based on the results of the fifth secondary hypothesis test presented in Table 8, the significance level of F Statistics (0.000) is below the acceptable level of error (5 percent) and the whole of the regression model is significant. Based on the insignificance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicate that liquidity has a significant and positive impact on return on equity. Therefore, the fifth hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the independent variable entered in the regression model can explain 11% of variability of the dependent variable.

Table 8: Results of the Fifth Secondary Hypothesis Test

Variable	β	(β **Coefficient**	**t Statistics**	**P-Value**
Constant Value	α	0/393	31/344	**0/000**
Liquidity	β_1	0/469	3/586	**0/0**
Total Regression Model	F Statistics	P-Value	**0/121** R^2 =**0/102**= AdjR^2	
	12/862	**0/000**	The coefficient of determination and the adjusted coefficient of determination	

According to the sixth secondary hypothesis there is a relationship between liquidity and free cash flow per share. To test the sixth hypothesis, the following model is used:

Table 9: Results of the Sixth Secondary Hypothesis Test

Variable	β	**(β Coefficient**	**t Statistics**	**P-Value**
Constant Value	α	-89/54	-13/682	**0/000**
Liquidity	β_1	118/84	1/709	**0/048**
Total Regression Model	F Statistics **2/922**	P-Value **0/048**	**0/055** R^2 =**0/053**= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the sixth secondary hypothesis test presented in Table9, the significance level of F Statistics (0.048) is below the acceptable level of error (5 percent) and the whole of the regression model is significant. Based on the insignificance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicate that liquidity has a significant and positive impact on free cash flow per share. Therefore, the sixth hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the independent variable entered in the regression model can explain 5.5 % of variability of the dependent variable. According to the seventh secondary hypothesis there is a relationship between liquidity and return on assets. To test the seventh hypothesis, the following model is used:

Table 10: Results of the Seventh Secondary Hypothesis test

Variable	β	**(βCoefficient**	**t Statistics**	**P-Value**
Constant Value	α	**0/125**	23/685	**0/000**
Sales Growth	β_1	**0/525**	9/510	**0/000**
Total Regression Model	F Statistics **90.433**	P-Value **0/000**	**0/129** R^2 =**0/ 128**= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the seventh secondary hypothesis test presented in Table10, the significance level of F Statistics (0.000) is below the acceptable level of error (5 percent) and the whole of the regression model is significant. Based on the insignificance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicate that liquidity has a significant and positive impact on return on assets. Therefore, the first hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the variable entered in the regression model can explain 13% of variability. According to the eighth secondary hypothesis there is a relationship between liquidity and free cash flow for firm. To test the eighth hypothesis, the following model is used:

Table 11: Results of the First Secondary Hypothesis Test

Variable	β	**(βCoefficient**	**t Statistics**	**P-Value**
Constant Value	α	-0/167	-10/309	0/000
Liquidity	β_1	0/190	1/126	0/260
Total Regression Model	F Statistics **2.908**	P-Value 0/260	**0/046** R^2 =**0/002**= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the eighth secondary hypothesis test presented in Table11, the significance level of F Statistics (0.260) is higher than the acceptable level of error (5 percent) and the whole of the regression model is not significant. Based on the significance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicate that Liquidity has no impact on free cash flow for firm. Therefore, the eighth hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of

determination and the adjusted coefficient of determination also indicate that the independent variable entered in the regression model cannot explain the variability of the dependent variable.

The second main hypothesis: there is a relationship between capital structure and firm performance**.** To test the second hypothesis, the four secondary hypotheses have been provided which are based on four performance criteria and considers the test of the effect of corporate capital structure on its performance. According to the first hypothesis, there is a relationship between debt ratio and return on equity. To test the first hypothesis, the following model is used:

Table12: Results of the first secondary hypothesis test

Variable	β	(β**Coefficient**	**t Statistics**	**P-Value**
Constant Value	α	**0/373**	**12/216**	**0/000**
Debt ratio	β_1	**0/084**	0/741	**0/082**
Total Regression Model	F Statistics **3.030**	P-Value **0/082**	^{2}**0/005** R^2 =**0/003**= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the first secondary hypothesis test presented in Table 12, the significance level of F Statistics (0.082) is above the acceptable level of error (5 percent) and the whole of the regression model is not significant at the significance level of 95%. Based on the significance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicated that debt ratio has no impact on return on equity at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the independent variable entered in the regression model can explain 5% of variability of the dependent variable.

a) The second secondary hypothesis: there is a relationship between debt ratio and free cash flow per share. To test the second hypothesis, the following model is used:

Which is acceptable (5 percent) and total regression model is not significant at the level 95% is not significant. Based on the significance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicated that debt ratio has no impact on free cash flow per share. Therefore, the second hypothesis of the study cannot be accepted at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the independent variable entered in the regression model cannot explain the variability of the dependent variable.

Table 13: Results of the second secondary hypothesis test

Variable	**β**	**β Coefficient**	**t Statistics**	**P-Value**
Constant Value	α	-75/ 54	824/4-	0/000
Debt ratio	β_1	-95/24	-0/383	0/702
Total Regression Model	F Statistics 0.146	P-Value 0/702	0/000 000R^2 =0/= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

b) There is a relationship between debt ratio and return on assets.

To test the third hypothesis, the following model is used:

Table 14: Results of the third secondary hypothesis test

Variable	β	(β Coefficient	t Statistics	P-Value
Constant Value	α	0.261	20/087	0/000
Debt Ratio	β_1	-0/ 169	-8/228	0/000
Total Regression Model	F Statistics 67/708	P-Value 0/000	0/100 099R^2 =0/= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the third secondary hypothesis test presented in Table 14, the significance level of F Statistics (0.000) is below the acceptable level of error (5 percent) and the whole of the regression model is significant at the level 5%. Based on the insignificance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicated that debt ratio has a significant and negative impact on corporate assets. Therefore, the third secondary hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the variable entered in the regression model can explain 1% of variability of the dependent variable. According to the fourth secondary hypothesis there is a relationship between debt ratio and free cash flow for firm.

To test the fourth hypothesis, the following model is used:

Table 15: Results of the third secondary hypothesis test

Variable	β	(β Coefficient	t Statistics	P-Value
Constant Value	α	-0/230	-5/890	0/000
Debt ratio	β_1	0/ 125	023/2	0/000
Total Regression Model	F Statistics 4/094	P-Value 0/043	0/082007R^2 =0/= AdjR^2 The coefficient of determination and the adjusted coefficient of determination	

Based on the results of the fourth secondary hypothesis test presented in Table 15, the significance level of F Statistics (0.043) is below the acceptable level of error (5 percent) and the whole of the regression model is significant at the level 95%. Based on the insignificance of (P-value) t-statistics of an acceptable level of error for coefficient β_1, the results of the test indicated that debt ratio has a significant and positive impact on free cash flow for firm. Therefore, the first hypothesis of the study cannot be rejected at the confidence level of 95%. The coefficient of determination and the adjusted coefficient of determination also indicate that the variable entered in the regression model can explain 8% of variability of the dependent variable.

5. Conclusion

Independent variable sales growth has a significant positive impact on return on equity and return on assets, i.e. by increase in the amount of sale growth, return on equity and return on assets increase. This indicates that the firms with a higher sales growth have a higher return on equity and return on asset, and by decrease in the amount of sales growth, return on equity and return on assets decrease. As we know, return on equity and return on assets are considered to be as profitability ratios; it is better to say whenever a net benefit for the performance evaluation of a formula is used, the evaluation of the profitability of the company is assumed. Therefore, based on the results of the present study, a firm with a high sales growth has a high profitability as well. The liquidity as an independent variable has a significant positive impact on return on equity, return on assets, and free cash flow per share. It means that a firm with higher liquidity has a more improved performance. If liquidity of a firm increases, free cash flow per share increases and a high free cash flow per share indicate that profit per share must be increased, because free cash flow per share is an indicator to measure change in profit per share, and is regarded to be a signal of firm's ability to pay debts, cash profit, share redemption and business facilities.

Debt ratio as an independent variable has a significant impact on free cash flow for firm and return on assets, which this has a positive impact on free cash flow for firm and a negative impact on return on assets. After confirming four secondary hypotheses formulated for main secondary hypothesis test, two third and fourth secondary hypotheses are also confirmed. It could be concluded that by increase in debt ratio, free cash flow for firm increase and return on assets decreases. Using this ratio, the total amount of contributions provided through debts can be calculated. This ratio is used as an indicator to determine firm financial risk, because using non-equity resources increases the likelihood of firm disability in repayment of loans. Therefore, lenders and credit institutions pay special attention to this issue. If these organizations feel that the firm applying for loan has a high debt ratio may cancel the loan or demand additional collateral .It could be concluded that by increase in debt ratio, assets created by debts and also free cash flow per share decrease, because firms to pay their debt use their cash surpluses, and so return on assets increase.

Suggestions

A) Analysts and those active in capital market pay attention to sales growth, firm liquidity, debt ratio and also profitability criteria when they attempt to consider firm performance.
B) It is better investors consider the negative significant impact of debt ratio on return on assets and also consider the significant impact of sales growth and liquidity on firm performance.
C) The validity lending institutions pay attention to negative significant impact of debt ratio on return on assets when granting credit to firms
D) Firm managers pay attention to significant positive impact of liquidity and return on equity and also the significant negative impact of debt ratio on return on assets.

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Attitudes of Small Business Owners towards Counterfeit Merchandise: Ethics or Survival?

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Abstract: Counterfeiting of products is an industry that affects many countries worldwide and it is an industry that has grown exponentially in the 21st century, due to the value associated with branded products. It is the demand from individuals that fuels this trade and what will keep the trade growing for years to come. It therefore becomes essential that research be conducted to investigate the attitudes held towards the trade in order to gain a better understanding of the current counterfeit environment. This article aimed to investigate the attitudes that South African small business owners have with regard to counterfeit merchandise. Quantitative research was undertaken by means of a self-administered web-based questionnaire that was e-mailed to individuals that either have an active SME (Small, Medium Enterprise) or individuals that are seeking to start their SME, who reside in the provinces of the Mpumalanga and the Western Cape. The data obtained was then analysed by means of SAS JMP version 11 whereby attitudes held towards counterfeit merchandise were established. The main conclusions emanating from the research, was that South African SMEs generally have a negative attitude towards purchasing counterfeit fashion branded merchandise.

Keywords: *Brands, brand value, non-deceptive counterfeits, small businesses, attitudes, South Africa*

1. Introduction

Counterfeiting, a trade that was once thought to be of minor significance, has grown at an alarming rate to be a serious economic, political and social issue, occurring in both developing and developed countries (Swami, Chamorro-Premuzic & Furnham, 2009:820; Penz & Ströttinger, 2005:568; Eisend & Schuchert-Güler, 2006; De Matos, Ituassu & Rossi, 2007:36). The illicit trade is said to have grown by over 10,000 per cent over the past two decades and accounts for approximately five to seven per cent of total world trade (between $500-$600 billion) (IACC, n.d.; Turunen & Laaksonen, 2011:468; Kim & Karpova, 2010:79; Yoo & Lee, 2012:1507). Furthermore, the international chamber of commerce (ICC, n.d.) estimates the industry to grow to a projected $1.77 trillion by 2015 with job loss projections to be around 2.5 million. Such data is however difficult to confirm due to the struggle in obtaining precise statistics (Swami *et al.*, 2009:820). The phenomenal growth within the counterfeit industry can be attributed to many things, for example new technology, the increase in global trade, the internet which permits greater product dissemination, the development of new markets and the increase in products that have value in counterfeiting (Phau, Teah & Lee, 2009:3; Phau & Teah, 2009:15; le Cordeur, 2012) but more so it is the demand of consumers for such merchandise that fuels the continued success of the trade (Bian & Moutinho, 2011:379) and one of the biggest threats counterfeiting has to the authentic brand market is that certain industries could ultimately find themselves in direct competition with the illicit traders (News24, 2011).

Academic literature indicates a strong research focus towards that of the supply side of the counterfeit industry, however leaving the demand aspect still relatively unknown (Penz & Ströttinger, 2005:568; Heike, 2010:160; Lee & Workman, 2011:290; Vida, 2007:254). Furthermore, few studies have examined consumer behaviour and attitudes regarding counterfeit products (Bian & Veloutsou, 2007:211), essentially the "…learned predisposition to behave in a consistently favourable or unfavourable way toward market-related objects, events or situations" (Cant, 2010:46) and even less have focussed on behavioural habits of consumers residing within African markets and in particular small business owners' attitudes towards the purchase of such merchandise in South Africa. Therefore, this research sought to fulfil this gap within academic literature, by establishing small business owners' attitudes towards counterfeit merchandise in South Africa. Through revealing insights into the attitudes, motivations and determinants of counterfeit purchase behaviour, Koklic, (2011:127) as well as Kim and Karpova (2010:80) state that worthwhile public policy could essentially be developed. Bian and Moutinho (2009:369) further state that through identification of counterfeit purchase determinants, marketers might be able to set up more effective and sophisticated marketing strategies. The next section provides a brief background into the counterfeit trade, counterfeiter's attraction to African

markets, the counterfeiting issues arising in South Africa and the attitude towards counterfeit merchandise which is then followed by the aims and objectives of the article. Lastly, a brief description as to research methodology employed is discussed followed by a discussion as to the research findings, conclusions, recommendations and limitations.

2. Literature Review

Counterfeit Trade: The word counterfeit is a term that can be seen to be synonymous with fake, imitation, knock-off, copy and replica (Juggessur & Cohen, 2009:390; Nellis, 2011) and can be defined according to Teah and Phau (2001:1) as "…the reproduction or replicated version of genuine article". Counterfeit merchandise can be divided into two categories known as deceptive counterfeit products and non-deceptive counterfeit products (Juggessur & Cohen, 2009:390). Deceptive counterfeit products are those products that intentionally mislead the consumer into believing they are purchasing the authentic product while non-deceptive counterfeit products are those products which consumers know to be non-authentic due to price, quality and method of distribution, yet purchase them anyway (Zhang, Hong & Zhang, 2012:50; Penz & Ströttinger, 2005:568; Heike, 2010:161). For the purpose of this study non-deceptive counterfeiting was investigated as according to Bian and Moutinho (2009:93) it is only under these situations that consumer perceptions and/or attitudes will reflect their demand.

The counterfeit industry is said to affect a wide array of products and virtually leaves no product category unscathed (Bian & Veloutsou, 2007:212; Ang, Cheng, Lim & Tambyah, 2001:221). According to Penz and Ströttinger (2005:568), the preferred target markets for counterfeiters are companies that carry high brand image and require a relatively simple production method for their products. The reason pertaining to this is that a company's brand is often its most valuable asset and if it is successful the brand will most often be susceptible to counterfeit practices (Maldonado & Hume, 2005:105). One of the most prominently affected industries of counterfeit trade, is that of the fashion branded products as this is a very lucrative market, among which clothing, shoes, watches, leather goods, and jewellery are among the top affected products (Harun, Bledram, Suki & Hussein, 2012:15; Phau, Sequeira & Dix, 2009:262; Ergin, 2010:2181-2186). Therefore, for the purpose of this research attitudes held toward counterfeit fashion branded merchandise were investigated.

Counterfeit merchandise can furthermore be traced all over the world, but what has become very apparent is that the act of counterfeiting is particularly widespread in Asia (Ang *et al*., 2001:221). According to Bian and Veloutsou (2007:213) and Phau and Teah (2009:15) China is notoriously known to be one of the major producers of counterfeit merchandise and is the country where all sources of counterfeit merchandise can be traced. Bian and Veloutsou (2007:213) further go on to state that China exports counterfeit merchandise globally to Europe, Russia, the Middle East and the United States of America, but what has become a new trend in the eyes of counterfeiters is to utilise Africa as a "transit route"; through utilising Africa, merchandise is rerouted in order to disguise the producer's country of origin (Meissner, 2010). The following section will further discuss the attraction counterfeiters have had to Africa.

Counterfeiters Attraction to African Markets: Not only can country of origin be disguised through the use of African markets, but Meissner (2010) further points out that the attraction to African markets for counterfeiters is due to increasing trade links established between Africa and China, where porous borders are found. Also, African governments do not share data with regard to counterfeit goods and probably most importantly, most African consumers do not regard the trading of counterfeit merchandise to be a serious crime (Meissner, 2010). A further key driving factor, according to Haman (2010:345), which adds to Africa's counterfeit problems are that of socio-economic factors, whereby poverty and unemployment guarantee that there are enough individuals that need to make a living by any means necessary. This consequently means that individuals could be subject to trading directly or indirectly with counterfeit merchandise in order to support themselves and their families.

Counterfeiting Issues Arising in South Africa: Like all nations, South Africa is no exemption to counterfeit trade, according to the South African Institute for Intellectual Property Law (SAIIPL, [n.d.]), South Africa in particular is being targeted by counterfeiters as a "dumping ground" and "transit route" as the country is not

landlocked like other African countries and furthermore the country has many ports for which counterfeiters can dock at to off load merchandise (Haman, 2010:345). According to du Plessis (In: le Cordeur, 2012), counterfeiting of merchandise in South Africa is a somewhat new problem, most likely brought about due to the countries past political isolation and due to luxury products (products counterfeiters target most), being regarded for the well-off and those that had sufficient funds to travel abroad (le Cordeur, 2012). Post political isolation however, South African borders became more permeable, trade relationships were established and well-known brands became more available in the country, making South African consumers more brand conscious (le Cordeur, 2012).

Ramara and Lamont (2012) state that, the act of counterfeiting in South Africa is regarded as a victimless offense to many, and one that it is viewed as a chance to get a desired branded product at a far lower price to that of the authentic. According to Magwaza (2012), South Africa has seen a solid increase in the amount of street vendors trading counterfeit clothing; this act has therefore affected the country in a detrimental way, whereby jobs as well as revenue for clothing manufacturers have been lost. Singh (In News24, 2011) notes that the South African counterfeit trade industry is valued at around R362 billion, and is regarded as one of the world's fastest growing trades. Ramara and Lamont (2012) indicate that in 2010 a projected 14,400 South Africans lost their jobs in the textile industry as a result of counterfeit clothing being imported. Magwaza (2012) asserts that, in 2011, 20,000 seizures were made by the South African Revenue Service which can be seen to be valued at R1 billion, whereby 750,000 pieces of clothing were seized to the value of R483 million. Even though government authorities and industries fight to restrain this illegal activity, counterfeits are in the market because there is a demand by consumers (Kim & Karpova, 2010:80). Therefore, in order to understand this demand, research into the attitudes of businesses and consumers becomes essential.

Attitude Towards Counterfeit Merchandise: The concept of attitude is frequently utilised by marketers as a forecaster of consumer intentions and behaviours (Phau, Sequeira & Dix, 2009:263), and it is an important construct in the study of counterfeit purchase behaviour however it is a section within literature that has received very little attention (Sharma & Chan, 2011:605). Attitude, according to Yoo and Lee (2009:280), refers to "…the degree to which a person has a favourable appraisal of the behaviour in question and are an immediate indicator by which his/her intention of conducting a specific behaviour can be predicted". Mir (2011:51-52) further states that attitudes "… are an individual's internal evaluations of the objects or events based on his or her beliefs". Furthermore, attitudes are what guide consumers to make a response within their environment and provides them with reasons to perform the specific act. Lan, Lui, Fang and Lin (2012:290) indicate that a consumer's intention to purchase counterfeit products is dependent on a consumer's attitude towards the counterfeit merchandise. Therefore, according to Yoo and Lee (2009:280) if consumers have positive attitudes toward buying counterfeit products it is expected to positively affect their purchase intention towards counterfeits. Due to the fact that attitudes cannot be directly observed, marketers must depend on determining consumers' attitudes through research (Phau, Sequeira & Dix, 2009:263). This research evaluates consumer's attitudes towards counterfeit products through the evaluation of consumer past purchases and factors that influence the decision to purchase counterfeit products.

Aim and Objectives of the Research: The primary objective of the study was to determine the attitudes held by Small Medium Enterprise (SME) owners in relation to the purchase of counterfeit fashion merchandise. In order to ascertain this primary objective the following secondary research objectives were formulated.

- To determine what fashion branded counterfeit products are being purchased
- To explore the relationship between positive attitudes of buying counterfeit products and biographical profiles
- To explore the relationship between negative attitudes of buying counterfeit products and biographical profiles
- To investigate factors influencing the decision to purchase counterfeit fashion branded products

3. Methodology

In determining the attitudes held by SME owners in relation to the purchase of counterfeit fashion merchandise a questionnaire was developed for this study. The questionnaire mostly incorporated questions that were quantitative in nature. An online survey questionnaire (Survey Monkey) was used to collect the

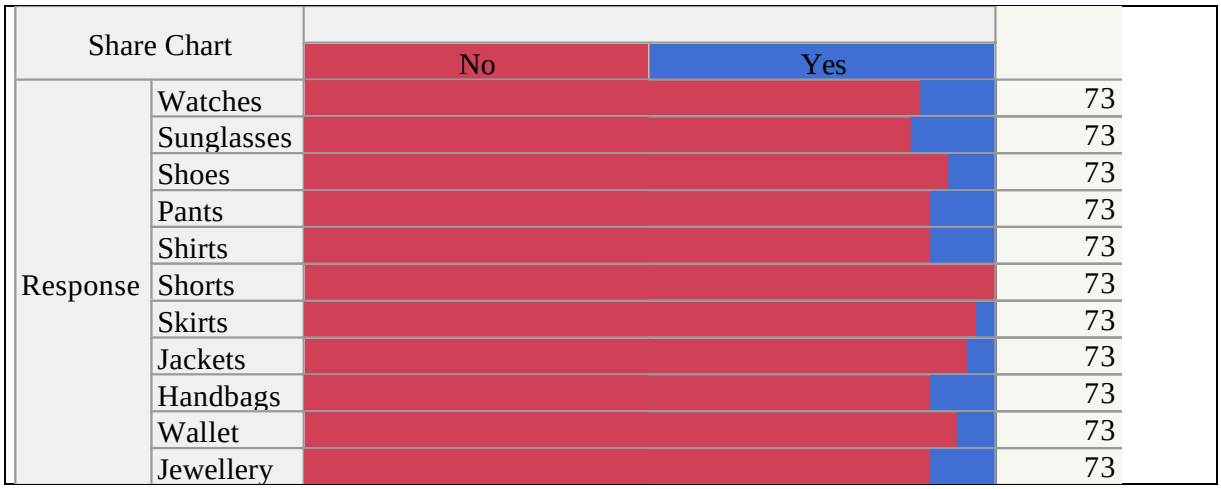
data from entrepreneurs and potential entrepreneurs in the South African provinces of Mpumalanga and the Western Cape. A sufficient number of questionnaires were sent out for a confidence level of 95 per cent and a confidence interval of 10. A total of 73 usable responses were received, giving a 95 per cent confidence level and a 10.89 confidence interval at 50 per cent. The demographic profile of the majority of respondents (32.76 per cent) was between 25 and 34 years of age. The gender split for the respondent group was male dominated, with 63.16 per cent of respondents being male. Most of the respondents were African (57.41 per cent), and most respondents had a matric qualification. Respondents were evenly spread over business sectors, while residing mostly in Mpumalanga (42.11 per cent) and the Western Cape (50.88 per cent). The demographic profile of the respondent group is presented in Table 1 below:

Table 1: Demographic Profile of Respondents

	% of Total	N		% of Total	N
Age group			**Business sector**		
18-24	13.79	8	Banks/insurance	6.00	3
25-34	32.76	19	Business services	30.00	15
35-44	20.69	12	Construction	12.00	6
45-54	25.86	15	Food/Catering	16.00	8
55-64	6.90	4	IT	8.00	4
Gender			Manufacturing	12.00	6
Female	36.84	21	Retail	10.00	5
Male	63.16	36	Transport	6.00	3
Highest qualification			**Residing province**		
Certificate	21.05	12	Gauteng	1.75	1
Degree	14.04	8	Limpopo	1.75	1
Diploma	19.30	11	Mpumalanga	42.11	24
Doctorate	5.26	3	The Northern Cape	3.51	2
Matric	28.07	16	The Western Cape	50.88	29
Post graduate degree	12.28	7			

Table 2: Counterfeit Products Purchased

Item	Total Responses	NO		YES	
		% of Total	N	% of Total	N
Watches	73	89.0	65	11.0	8
Sunglasses	73	87.7	64	12.3	9
Shoes	73	93.2	68	6.8	5
Pants	73	90.4	66	9.6	7
Shirts	73	90.4	66	9.6	7
Shorts	73	100	73	0.0	0
Skirts	73	97.3	71	2.7	2
Jackets	73	95.9	70	4.1	3
Handbags	73	90.4	66	9.6	7
Wallet	73	94.5	69	5.5	4
Jewellery	73	90.4	66	9.6	7



4. Findings and Discussion

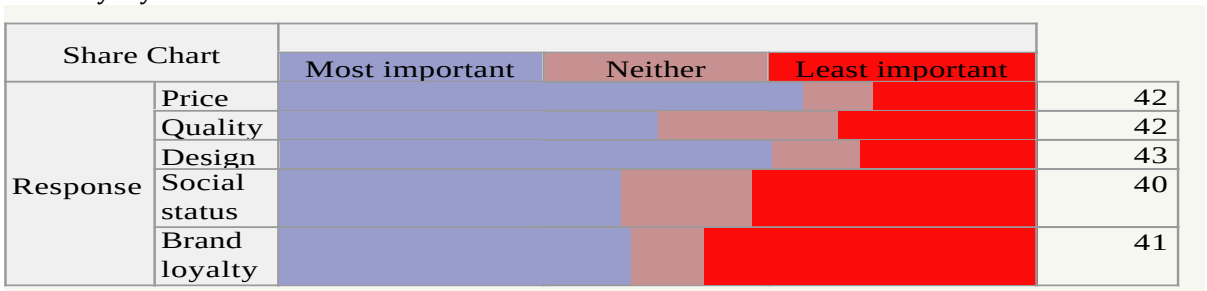
Past purchase behaviour of SME Owners towards Counterfeit Products: To determine what kind of counterfeit products have been purchased in the past, respondents were asked to indicate all the products that they previously bought. Table 2 below is indicative of the results obtained:

From the results obtained it can be seen that most SME owners purchased counterfeit sunglasses (12.3 per cent) followed by watches (11 per cent) while none had purchased counterfeit shorts.

Factors that influence decision to purchase counterfeit products: To determine the attitudes of respondents on the factors influencing the decision to purchase a counterfeit, respondents were asked to rate five statements on a five-point Likert scale (1 being "Most important" and 5 being "Least important"). For interpretation purposes the scale was collapsed to a three-point scale by combining statements 4 and 5 as "most important", and statements 1 and 2 as "least important". Table 3 below indicates the results obtained:

Table 3: Factors Influencing Counterfeit Purchase Decision

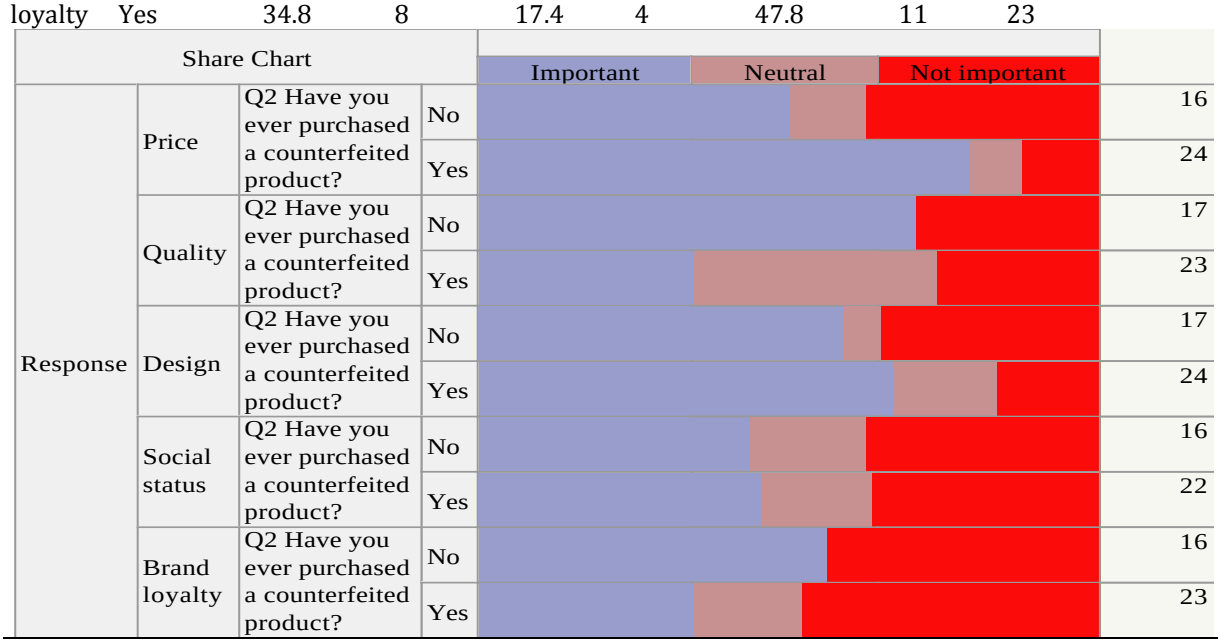
Factors	Most important		Neither		Least important		Total Responses
	% of Total	N	% of Total	N	% of Total	N	
Price	69.0	29	9.5	4	21.4	9	42
Quality	50.0	21	23.8	10	26.2	11	42
Design	65.1	28	11.6	5	23.3	10	43
Social status	45.0	18	17.5	7	37.5	15	40
Brand loyalty	46.3	19	9.8	4	43.9	18	41



From Table 3 above it can be seen that, price is considered by most of the respondents to be the most important factor followed, by design. However, when respondents are split between respondents that have purchased and those that have not purchased a counterfeit product, a different pattern emerges. This pattern can be viewed in Table 4 below:

Table 4: Factors Influencing Purchase Decision Versus Purchase and Not Purchased

Factor	Purchased	Most Important % of Total	N	Neutral % of Total	N	Least Important % of Total	N	Total Responses
Price	No	50.0	8	12.5	2	37.5	6	16
	Yes	79.2	19	8.3	2	12.5	3	24
Quality	No	70.6	12	0	0	29.4	5	17
	Yes	34.8	8	39.1	9	26.1	6	23
Design	No	58.8	10	5.9	1	35.3	6	17
	Yes	66.7	16	16.7	4	16.7	4	24
Social status	No	43.8	7	18.8	3	37.5	6	16
	Yes	45.5	10	18.2	4	36.4	8	22
Brand loyalty	No	56.3	9	0	0	43.8	7	16
	Yes	34.8	8	17.4	4	47.8	11	23



Respondents that have purchased a counterfeit product consider price as the most important factor, followed by design. Respondents that have **NOT** purchased a counterfeit product consider quality as the most important factor followed by brand loyalty. When collapsing "most important" and "least important" as "important" and "not important", seemingly[1] significant associations for quality and design are shown. See Table 5 below:

Table 5: Significance of the Factors that Influence the Decision to Purchase

Factor	Chi-Square value	DF	P-value	Significance
Price	4.043	2	0.1324	Not Significant
Quality	9.198	2	0.0101	Seems to be Significant
Design	2.461	2	0.2921	Not Significant
Social status	0.011	2	0.9946	Not Significant
Brand loyalty	3.814	2	0.1485	Not Significant

From Table 5, a seemingly significant association exists between question 2 (Have you ever purchased a counterfeit product?) and question 4 (Quality).

[1] Please note that the assumption of expected cell size >= 5 is violated.

Table 6: Quality By Q2, Have You Ever Purchased a Counterfeited Product?

		No	Yes	Total
Important	Count	12	8	20
	Total %	30.00	20.00	50.00
	Column %	70.59	34.78	
	Row %	60	40.00	
Neutral	Count	0	9	9
	Total %	0.00	22.50	22.50
	Column %	0.00	39.13	
	Row %	0.00	100	
Not important	Count	5	6	11
	Total %	12.50	15.00	27.50
	Column %	29.41	26.09	
	Row %	45.45	54.55	
Total	Count	17	23	40
	Total %	42.50	57.50	100

Clearly the proportion of respondents that have purchased a counterfeit product is much higher for the neutral group of quality (9/9=100 per cent) than the other categories (important: 8/20=40 per cent and not important: 6/11=54.55 per cent). The conclusion could be made that the proportion of respondents that purchased a counterfeit product are much higher for the neutral category than the other categories.

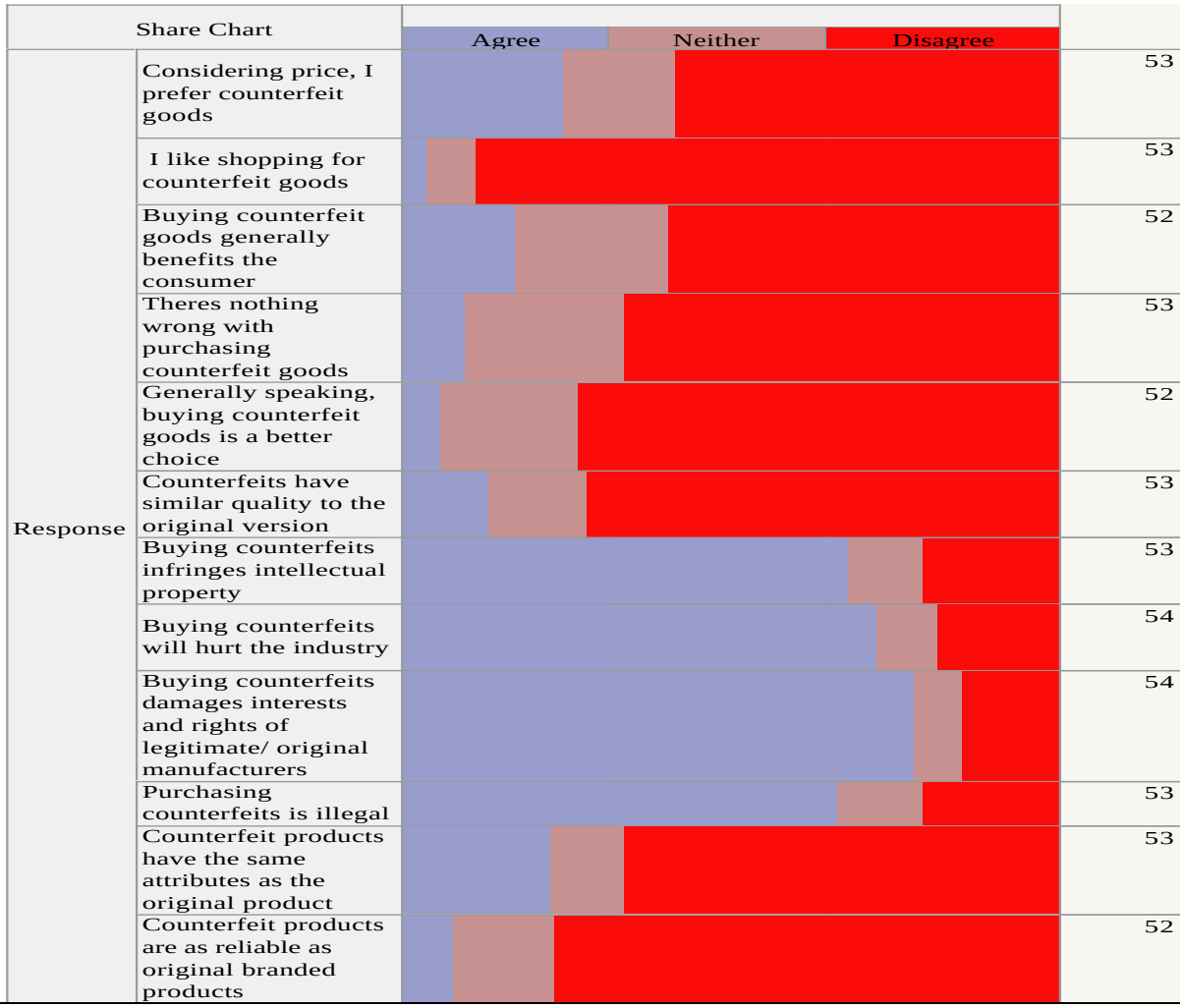
Attitude of Small Business Owners towards the Purchase of Counterfeits: To determine the attitudes of SME owners regarding the purchase of a counterfeit; respondents were asked to rate 12 statements on a five-point Likert scale (1 being "strongly agree" and 5 being "strongly disagree"). For interpretation purposes the scale was collapsed to a three-point scale combining statement 1 and 2 as "agree", and statement 5 and 6 as "disagree". Table 7 below is indicative as to the results obtained:

Table 7: Attitude Statements and Share Chart[2]

Statements	Disagree		Neither		Agree		
	% of Total	N	% of Total	N	% of Total	N	Mean
Considering price, I prefer counterfeit goods	58.49	31	16.98	9	24.53	13	1.66
I like shopping for counterfeit goods	88.68	47	7.55	4	3.77	2	1.15
Buying counterfeit goods generally benefits the consumer	59.62	31	23.08	12	17.31	9	1.58
There's nothing wrong with purchasing counterfeit goods	66.04	35	24.53	13	9.43	5	1.43
Generally speaking, buying counterfeit goods is a better choice	73.08	38	21.15	11	5.77	3	1.33
Counterfeits have similar quality to the original version	71.70	38	15.09	8	13.21	7	1.42
Buying counterfeits infringes intellectual property	20.75	11	11.32	6	67.92	36	2.47
Buying counterfeits will hurt the industry	18.52	10	9.26	5	72.22	39	2.54

[2] * Please note that a few of the mentioned statements were derived from De Matos et al (2007) and Riquelme, Abbas & Rios (2012).

Buying counterfeits damages interests and rights of legitimate/ original manufacturers	14.81	8	7.41	4	77.78	42	2.63
Purchasing counterfeits is illegal	20.75	11	13.21	7	66.04	35	2.45
Counterfeit products have the same attributes as the original product	66.04	35	11.32	6	22.64	12	1.57
Counterfeit products are as reliable as original branded products	76.92	40	15.38	8	7.69	4	1.31



It is clear from the table above that the majority (88.68 per cent) of SME owners do not like shopping for counterfeit goods. More than three quarters (77.78 per cent) agreed that buying counterfeits damage the interests and rights of legitimate/original manufacturers. A large portion (76.92 per cent) see counterfeits as not as reliable as original branded products. Almost three quarters (73.08 per cent) share the view that in general, buying counterfeit goods is not a better choice. A large portion of the sample (72.22 per cent) is of the opinion that buying counterfeits will hurt the industry.

An exploratory factor analysis was done on these statements (Table 8) to group attitudes towards counterfeit products. The principal components method was used to extract the components, and this was followed by a Varimax (orthogonal) rotation. Only the first two components exhibited Eigen values greater than or near 1 and results of a screen test also suggested that only the first two were meaningful. Therefore, only the first two components were retained for rotation. Combined, the first two components accounted for 67 per cent of

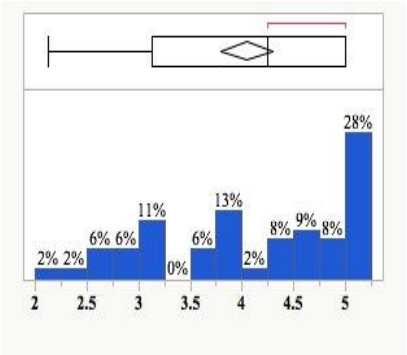
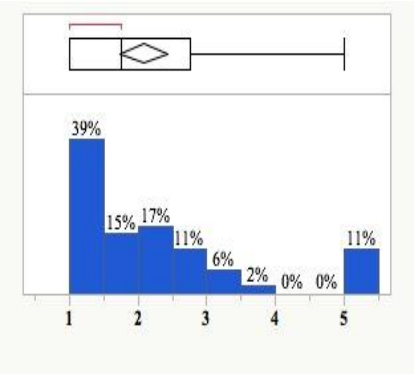
the total variance. Questionnaire items and corresponding factor loadings are presented in Table 8 below. In interpreting the rotated factor pattern, an item was said to load on a given component if the factor loading was 0.40 or greater for that component and less than 0.40 for the other. Using these criteria, eight items were found to load on the first component, which was subsequently labelled "*Personal agenda*". Four items loaded on the second component, labelled "*Legal issues*".

Table 8: Rotated Factor Loadings[3]

Statement	Factor 1	Factor 2
Considering price, I prefer counterfeit goods	**0.85**	0.14
I like shopping for counterfeit goods	**0.73**	0.06
Buying counterfeit goods generally benefits the consumer	**0.71**	0.08
There's nothing wrong with purchasing counterfeit goods	**0.67**	-0.1
Generally speaking, buying counterfeit goods is a better choice.	**0.88**	0.00
Counterfeits have similar quality to the original version	**0.78**	0.14
Buying counterfeits infringes intellectual property	0.20	**0.71**
Buying counterfeits will hurt the industry	0.04	**0.85**
Buying counterfeits damages interests and rights of legitimate/ original manufacturers	0.07	**0.92**
Purchasing counterfeits is illegal	0.01	**0.76**
Counterfeit products have the same attributes as the original product	**0.65**	0.12
Counterfeit products are as reliable as original branded products	**0.70**	0.14

Reliability of the Two Extracted Factors (Constructs): Reliability is the consistency of the measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. A Cronbach's alpha value above 0.8 has a very good reliability; a value between 0.6 and 0.8 has an acceptable reliability and a value below 0.6 have an unacceptable reliability. The Cronbach's alpha for the two sub-constructs all yielded high Cronbach alpha values (>=0.80) indicating good reliability. The table below represents the distribution of the scores, summary of statistics and Cronbach's alpha values of each of the two constructs.

Table 9: The Distribution of the Scores, Statistics Summary and Cronbach's Alpha

Construct	Personal agenda	Legal issues
Distribution of scores	% of Respondents 	% of Respondents 
	Scale	Scale
Mean	4.0471698	2.0787037

[3] * Please note that a few of the mentioned statements were derived from De Matos et al (2007) and Riquelme, Abbas & Rios (2012).

Std Dev	0.907227	1.2540727
Std Err Mean	0.1246172	0.1706577
Upper 95%	4.2972326	0.1706577
Lower 95%	3.7971071	1.7364078
N	53	53
Cronbach's alpha	0.91	0.88

It is clear from the table that the score for the construct personal agenda is skewed to the right whereas the score for the construct legal issues is skewed to the left. The individual Cronbach's coefficient alpha value of each dimension is used as a measure of the reliability of the tested construct or factor. A reliable Cronbach's coefficient alpha value validates that the individual items of a construct or factor measured the same construct or factor in the same manner (or consistently). Respondents seem to be negative towards counterfeits with '*Personal agenda'* the mean is high (4.05) indicating disagreement while the mean for '*Legal issues'* is low (2.08) indicating agreement. The standard deviation for '*Legal issues*' is higher indicating more variation in agreement among this construct or factor.

Profiling the Views of Respondents on Counterfeits: The biographical variables age, gender, population group, income group, qualification and province were tested against the constructs for significant different views. Of the biographical variables tested no variables showed significantly different views.

5. Conclusion and Recommendations

The International Trademark Association (INTA, 2014) defines the concept of counterfeiting to be the action of producing goods that are on most occasion of lesser quality and selling those products illegally under a brand name which the owner of the authentic brand has not authorised. INTA (2014) further indicates that a multitude of industries are affected by counterfeit trade; however one of the most prominent being that of the fashion industry (Harun et al., 2012:15; Phau et al., 2009:3; Phau, Sequeira & Dix, 2009:262; Ergin, 2010:2181-2186), due to its dominance in one's popular modern cultural psyche (O'Cass & Frost, 2002:68). With the spread of counterfeiting estimating to top $1.77 trillion by 2015 (ICC, 2011), it becomes apparent that more knowledge is needed, in a hope to limit the spread of the industry. This study therefore sought to gain insight into counterfeit purchases and attitudes held by SME owners or individuals wishing to start their own business. The research indicated that majority (12.3 per cent) had previously purchased sunglasses while 11 per cent had purchased watches.

Price is the most important factor followed by design when considering all respondents, however when splitting respondents between those that have bought and those that have not the following pattern emerges. Respondents that have purchased a counterfeit product consider price as the most important factor followed by design. Respondents that have not purchased a counterfeit product consider quality as the most important factor followed by brand loyalty. The research revealed that SME owners do not like shopping for counterfeit goods, they regard a counterfeit as not as reliable as the original branded products and do not think that buying counterfeit goods is a better choice. The SME owners also agree with the statements that buying counterfeits will hurt the industry and that buying counterfeits damage interests and rights of legitimate/original manufacturers. An exploratory factor analysis on the attitude and perception statements revealed two constructs. The first construct addressed personal agenda and the second construct legal issues.

Implications emanating of the research study are that even though there is a negative attitude towards counterfeit purchase among SME owners, those that have purchased counterfeit products in the past indicate the reason for purchase was due to price and design. It is important that original brand owners drive a campaign to highlight the aspect of quality so that consumers of branded products do not purchase these products due to inferior quality. A further implication emanating from the research, is that even though SME owners do agree that the purchase of counterfeit merchandise hurts the industry and damages the interests and rights of the original brand manufacturers, legal systems need to be heightened to ensure further damage to fashion branded merchandise is minimised, thereby reducing the detrimental effect of the illicit industry on the economy.

Limitations of the research study that need to be addressed and kept in consideration for future research studies, is that the sample consisted mainly of individuals from Mpumalanga and the Western Cape provinces of South Africa, thereby restricting generalisation to the mere population subgroups of South Africa. A further limitation that needs to be addressed is that the response rate was quite small (n = 73). Finally the sampling methodology utilised to select the population of interest was that of simple random sampling, this sampling methodology limits the study as all SME owners do not have a known chance of selection into the sample as it is based on random selection within a known sample population. Apart from the stated limitations mentioned, it is recommended that future research studies should expand the study to incorporate all South African SME owners, so as to do a comparative analysis of different provinces and delineate where problem areas in South Africa lie. Furthermore, future research should look to factors that could entice SME owners to purchase counterfeit merchandise. Finally, studies should seek to gain a better understanding as to South African consumers' attitude of counterfeit merchandise and their intentions to purchase counterfeit merchandise in order to gain a deeper understanding as to the South African counterfeit problem from a demand perspective.

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The influence of Perceived Hypermarket Size on Perceived Hypermarket Reputation, Trust and Customer Willingness to Purchase in South Africa

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Abstract: While a remarkable increase in research focusing customer purchase intentions in the retailing industry is noticeable, there is a dearth of studies that have investigated the influence of hypermarket size on customer perceived hypermarket reputation, trust in hypermarket and customer willingness to purchase in the African retailing context. This study used a sample 151 consumers in the Vanderbijlpark town in South Africa to examine these relationships. The results indicate that the proposed five hypotheses are positively supported in a significant way. A discussion of the academic and managerial implications of the results is provided and future research directions are suggested.

Keywords: *Hypermarket size; Customer trust; Customer perceived hypermarket reputation; Customer willingness to purchase; South Africa*

1. Introduction

As an emerging economy, South Africa's retailing industry has recently witnessed an increase of hypermarkets. While hypermarkets have been in existence in South Africa for quite a while, the past decade has seen a remarkable shift from convenience stores investment to hypermarkets investment (Neven, Reardon, Chege & Wang, 2006; Farhangmehr, Marques & Silva, 2001; Paswan, Pineda & Ramirez, 2010). This phenomenal shift is beginning to attract the attention of more prospective investors and scholars alike (Barros, 2006). At the centre nerve of the researchers' interest in South Africa are the questions, why hypermarkets? Does store size matter? Is it worth to invest in hypermarkets? An examination of the extant retailing literature seem to indicate that customer satisfaction has been the bedrock of many retailers (Hino, 2010; Farhangmehr et al., 2001; Juhl, Kristensen & Ostergaard, 2002; Guenzi, Johnson & Castaldo, 2009). However, what strategy to adopt in order to satisfy these customers appears to be the point of departure separating great achievers from the average performer in the retailing industry. For instance, some retailers believe that hypermarkets provide "one stop store" and therefore attracts more customers (Sand, Oppewal & Beverland, 2009), while others believe that investing in convenient stores at the proximity of customers is a sure way to satisfy buyers (Woodside & Trappey, 2001; Alexander & Silva, 2002). Whatever the argument, nevertheless, there is growing evidence though, indicating that sales growth and profit are associated with store size (Guy, 1995; Daskalopoulou & Petrou, 2005; Martinez-Ruiz et al., 2010). Unfortunately, instead of focusing more on the influence of store size on customer behavioural outcomes, the bulk of the retailing studies seem to have put more focus on hypermarkets' negative effects on convenient stores market and customer characteristics (e.g. Paswan et al., 2010; Wong & Dean, 2009:125; Lee, Chang & Lui, 2010; Hino, 2010:63; Martinez-Ruiz, Jimenez-Zarco & Izuierdo-Yusta, 2010; Farhangmehr et al., 2001).Besides, most of these studies happen to be from either Europe, the USA or Asia.

Against this backdrop, the purpose of current study therefore, is to fill in this void in two ways. First and foremost, this study seeks to investigate the influence of hypermarket size on customer willingness to purchase in South Africa. Lastly, the study also seeks to examine the mediating role of hypermarket reputation and customer trust in this hypermarket size and customer willingness to purchase relationship. Given that, the current study is one of the few that attempt to investigate the influence of hypermarket size on hypermarket reputation, customer trust and willingness to purchase in the African context – this study is important on two fronts due. First, this study is deemed to contribute new literature to the existing body of retailing literature on hypermarkets from a South African perspective. Second, the current study findings are expected to have practical implications to investors and managers in the hypermarket retailing sector. The rest of the paper is arranged as follows: A theoretical review, the conceptual research model and hypotheses development will be presented first. Thereafter the methodology, data analysis and conclusions are

discussed. The final section presents the implications of the study, limitations and recommendations for future research.

2. Literature review

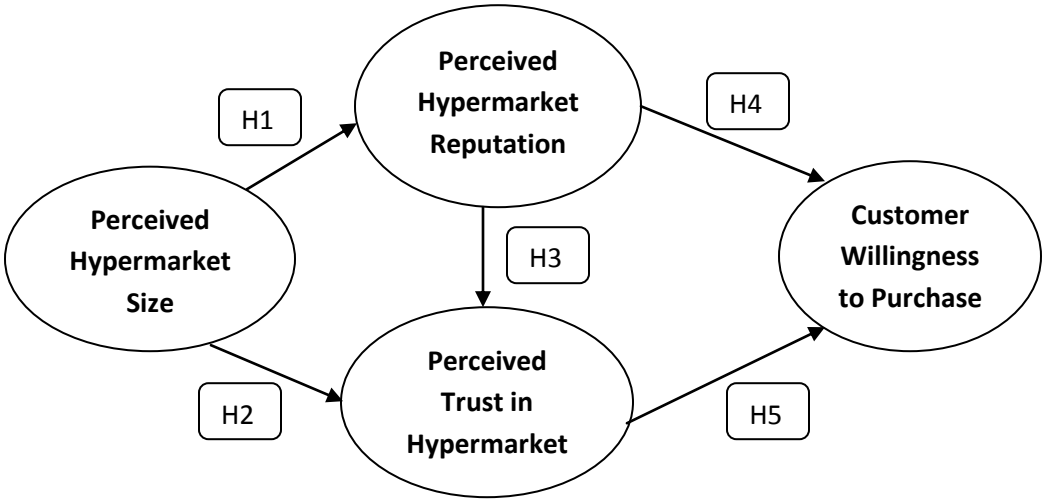
Hypermarket perceived size: Perceived store size may influence customer trust and willingness to buy (Farhangmehr et al., 2000). Most customer reasons for approaching particular large stores such as supermarkets or hypermarkets are that these large stores provide a variety of design products or service to satisfy the customer needs (Coelho & Henseler, 2012). By so doing, the customer does not have to go from one small store to the other (Juhl et al., 2002; Noyan & Simek, 2011; Netemeyer, Heilman & Maxham, 2012). Thus, the customers are more likely to be willing to buy only if the store can conveniently offer variety of products or services. For example, in South Africa, Pick'n Pay Hypermarket thrives on satisfying diverse individual customer needs, and therefore provides is large in size. In this case the customer may not be motivated to buy in a store that has limited number of goods or service due to its size. According to Bell, Mengüç and Widing (2010), store size is associated with the store management skills training. This therefore may imply that customers are likely to get better in-store shopping experiences and treatment by trained employees in large stores.

Hypermarket perceived reputation: Reputation in this study is defined as "a set of attributes ascribed to a firm, inferred from the firm's past actions" (Yoon, Oh, Song, Kim & Kim, 2014). How organisations manage their brand reputation determines how customers perceive their product (Beristain & Zorrilla, 2011). Empirical evidence in the retailing sector, recognise that retailer's reputation is an antecedent to consumer judgments and behaviors (Caruana & Ewing, 2010). For instance, consumers are likely to attribute high quality of products to the good reputation of the retailer (Suh & Houston, 2010; Lee & Shavitt, 2006; Roggeveen, Bharadwaj & Hoyer, 2007). Drawing from previous studies, reputation is reported to eventually trigger customer willingness to buy (Money, Hillenbrand, Day & Magnan, 2010). Many retailers today compete to be more reputable in the eyes of the customers through offering competitive value added products and enlarging the retail store's product line in order to satisfy diverse customers' needs (Sweeney & Soutar, 2001; Caruana & Ewing, 2010). A consumer's perceived brand reputation is reported in the retailing literature to have an impact on the retailer's performance (Hansen, Samuelsen & Silseth, 2008; Keh & Xie, 2009; Veloutsou & Motinho, 2009). In other words, the more reputable the retailer become in the mind of the customers, the more customers is willing to trust the products sold by the retailer (Jinfeng & Zhilong, 2009; Magi & Julander, 1996).

Customer trust and willingness to buy in hypermarket: "Trust is the willingness to rely on an exchange partner in whom one has confidence" (Schoenbachler & Gordon, 2002). In this study, trust is the expectations held by the customer that the store, its people, and its products are dependable and can be relied on to deliver on their promises. According to Ligas and Chaudhuri (2012), trustworthiness is a factor of risk perception, credibility, past experience, reputation, and perceived dependability. While retailers seek solutions to satisfy customers, the customers are concerned about the risks associated with purchasing form a certain retailer (Guenzi, Johnson & Castaldo, 2009). When risks are low, the customer is likely to trust the retailer and consequently the willingness to buy from that retailer (Ligas & Chaudhuri, 2012). Moreover, the empirical literature reports that customers' trust of a retailer's reputation can be a source of sustainable competitive advantage (Li, Li & Kambele, 2012; Rebollar, Lidon, Serrano, Martin & Fernandez, 2012). Therefore conversely, the lack of trust in a retailer by customers wills likely results in their unwillingness to buy.

Conceptual model and hypothesis development: A conceptual model is developed in Figure 1, and is drawn from the extant literature on retailing. In this model of four research variables, one variable is a predictor – perceived hypermarket size; two variables are mediators – perceived hypermarket reputation and perceived customer trust; and one outcome variable – customer willingness to purchase. Conceivably, perceived hypermarket size influences customer's perceived hypermarket reputation and trust, and then this eventually triggers the customers' willingness to purchase in hypermarkets. Detailed explanations of the associations between these constructs are provided in the hypotheses developed hereafter.

Figure 1: Conceptual Model



Hypermarket size and perceived reputation: Hypermarket size is the extension/expansion of convenience store, product line and brand name for the purpose of satisfying diverse customers' needs and customer's convenient shopping (Hansen et al., 2008). According to Jinfeng and Zhilong (2009), hypermarket is an emerging market to attract more customers' which may further enhance the way customer perceived the store reputation. Perceive reputation of hypermarket is seen by customers as the ability of the hypermarket to responds to their various needs at the right time and at a given place while cutting cost of going from one connivance store to another (Olavarrieta, Hidalgo, Manzur & Farias, 2012). Due to the fact that, hypermarket size attract more customers, the perceived reputation may be high due to the fact that hypermarket are able to launch a new product or service and as well able to support a high volume of goods (Stancu, & Meghisan, 2012). Drawing from this discussion above, this study therefore posits that:
H1: Hypermarket size has a positive influence on hypermarket perceived reputation.

Hypermarket size and perceived customer trust: The size of a hypermarket enables it to conveniently satisfy customer's diverse needs. This is so, because a hypermarket combines a supermarket and a department store but carrying a wide range of products under one roof - including full groceries lines and general merchandise (Schoenbachler & Gordon, 2002; Corritore, Kracher & Wiedenbeck, 2003; Beristain & Zorrila, 2011). According to Liao, Chen, and Wu (2008), the idea behind this may be to build customers' trust by providing consumers with all the goods they require, under one roof and thereby saving time and cost. Hypermarkets therefore provide consumers with comprehensive product options which consequently earn the hypermarkets the customer - even if it does not result in immediate sale (Glen, 2003; Nachiappan & Anantharaman, 2006; Roberts & McEvily, 2005). Deducing from the aforementioned arguments, this study postulate that:
H2: Hypermarket size has a positive influence on customer perceived trust in hypermarket

Perceived hypermarket reputation and perceived customer trust: As a collective determinant of dependability (trustworthiness), reputation can be a premise for customers' trust in a hypermarket. The perceived reputation emanates from the customer's overall estimation/believes of the character, quality or standing of a retailer (Suh & Houston 2010). This overall customer evaluation of the retailer's character is coupled with its ability to continuously meet the customers' needs in a manner that consequently result in their trust (Guenzi et al., 2009; Money et al., 2010). Thus, overtime, a hypermarket's reputation can be expected to lead to customers' trust in that hypermarket (Helm, 2007; Josang, Ismail & Boyd, 2007). Examples of hypermarkets in South Africa that are generally regarded to have earned the customers' trust are Pick n' pay hyper, Shoprite, Checkers hyper, Macro – among others. Based on the aforementioned discussions, this study therefore, proposes that:
H3: Hypermarket perceived reputation has a positive influence on perceived customer trust.

Perceived hypermarket reputation and customer willingness to purchase: Willingness to buy is the readiness, freewill and commitment of a consumer to purchase from a particular retailer. In economics, price triggers the customer willingness to buy, but according to Lee & Roh (2012), consumers' willingness to purchase can be triggered by the retailer's reputation irrespective of the price of the products. Chen and Li (2009) findings shows that perceived reputation and perceived risk are positively associated with the level of consumers' willingness to buy. They further assert that the question of where to make purchases is not an issue when there is a reputable hypermarket that customers can shop all their needs in a particular place. Thus, the customers' willingness to buy may be driven by how they perceive the hypermarket's reputation. Drawing from the foregoing discussion, this study posits that:
H4: Hypermarket perceived reputation has a positive influence on customer willingness to purchase

Perceived trust in hypermarket and customer willingness to purchase: Hypermarket increase of sales may be as a result of the ability of the hypermarket to continuously build customer trust in the retailer (Chen & Li, 2009). As customers' trust increases, greater lifetime profitability per customer willingness to buy will be achieved (Lee & Roh, 2012). Urban (2003), argues that "trust-based retailers have higher customer retention and more stable revenue streams". The prediction is that trust-based retailers will, in the end have higher sales volumes and lower marketing costs than competitor because of the customers' willingness to buy based on trust (Helm, 2007). Based on the empirical evidence discussed above, this study therefore, postulates that:
H5: *Perceived trust in hypermarket has a positive influence on customer willingness to purchase*

3. Methodology

Sample and data collection: The target population for the study was South African customers or clients in Gauteng who purchase at hypermarkets such as Checkers, Pick & Pay, Shop Rite, Spar and Game. Data collection was facilitated by students from the Vaal University of Technology, who were recruited as research assistants to distribute and collect the questionnaire.151 of the distributed questionnaires were usable, out of 170. This, final sample size constitute 89 per cent of the response rate. In order to eliminate differences in response patterns due to different reference points, the respondents were requested to answer the questionnaire with reference to their favourite store brands and their favourite retailer. Where the respondents were not sure, the research assistants guided them as their answered the questionnaire.

Research Measurement Items: Previous research formed the basis upon which the research instruments were formulated and operationalized. However, some modifications were done were necessary in order to suit the research goals. "Customer trust in hypermarket" measure used seven-item scales while "perceived hypermarket size" and "hypermarket reputation" used a three-item scale measure all adapted from Jarvenpaa, Tractinsky and Vitale (2000). Finally, "customer willingness to purchase" used three-item scale measure all adapted from Hellier, Geursen, Carr and Rickard (2003). All the measurement items were measured on a five-point Likert-type scales that was anchored by 1= strongly disagree to 5= strongly agree to express the degree of agreement.

4. Results

Respondent Profile: The respondents were asked to report their demographic information, including gender, age, marital status and education. Out of a sample set of 151, the majority of the respondents females (59.5%). The median age group of the respondent was that of less than 30 years (55.4%). 58% of the respondents were single. About 79.4% of the respondents had either high school (53%) or university level of education (26.4%) and the remainder had primary school (14.9%) or postgraduate level of education (5.7%).

Structural Equation Modelling (SEM) Approach: A structural equation modelling approach was used as a data analysis approach. In particular the Smart PL software (Ringle, Wende & Will, 2005) was used to assess the measurement and structural models. According to Chin & Newsted (1999) a measurement model is a linkage between the latent variables and their manifest variables while the structural model captures the hypothesized causal relationships among the research constructs. Smart PLS is a component based SEM technique that was developed from regression and path analysis. (Chinomona & Surujal, 2012).Smart PLS has advantages over covariance based SEM techniques such as AMOS in that, it has the ability to model latent

constructs that are uncontaminated by measurement error under conditions of non-normality. In addition to that, Smart PLS can handle complex predictive models in small-to-medium sample sizes. As a result of this quality, Smart PLS was found appropriate in case of the current study sample which is relatively small (151). In this respect, In order to check the statistical significance of the relationships, bootstrapping resampling method was used. Table 2 provided below, provides the reliability and validity indicators of the measurement model.

Table 2: Accuracy Analysis Statistics

Research Construct		LV Index Value	R-Squared Value	Cronbach's α value	C.R. Value	AVE Value	Commun ality	Factor Loading
	HT 1							0.574
	HT 2							0.568
	HT 3							0.617
HT	**HT 4**	3.998		0.693	0.791	0.400		0.519
	HT 5		0.449					0.660
	HT 6						0.400	0.565
	HT 7							0.642
	HS 1							0.691
HS	**HS 2**						0.453	0.792
		4.075	0.000	0.595	0.701	0.453		
	HS 3							0.504
	HR 1							0.729
HR	**HR 2**	3.819	0.263	0.601	0.788	0.553		0.739
							0.553	
	HR 3							0.762
	CWP 1							0.820
CWP	**CWP 2**	4.082	0.554	0.617	0.794	0.563		0.742
	CWP 3						0.563	0.683

Note: HT = Hypermarket Trust; HS = Hypermaket Size; HR = Hypermarket Reputation; CWP = Consumer Willingness to Purchase

Measurement Model: Convergent validity was assessed using the obtained item loadings which were expected to be above 0.5. Discriminant validity was assessed the inter-construct correlation matrix which

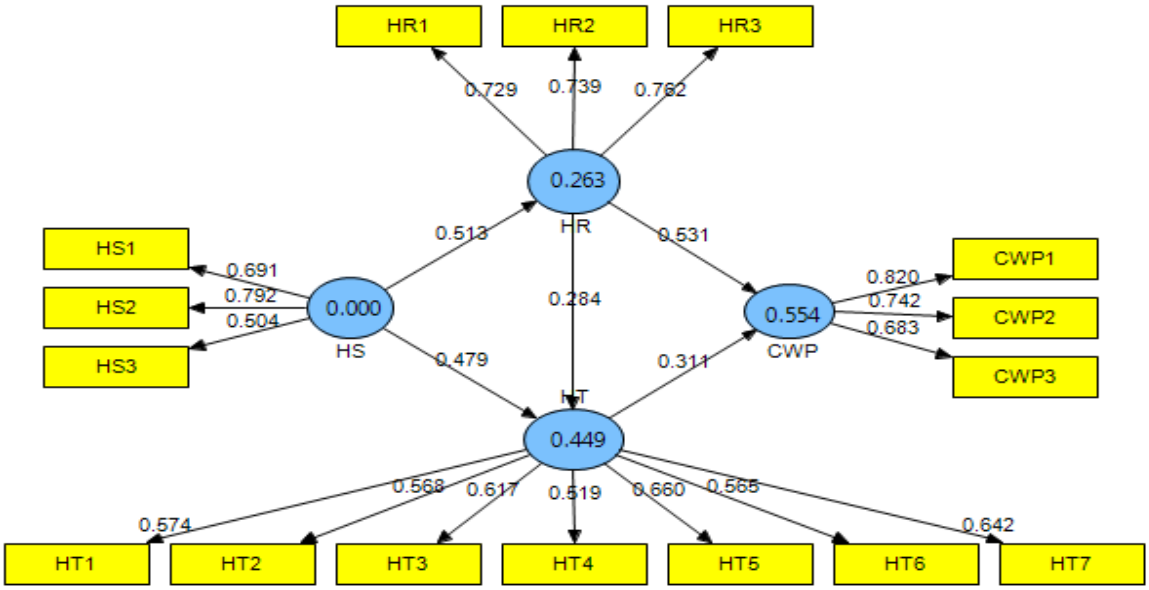
was expected to have cross-loading values that are less than 0.85 (Chin, 1998). Drawing from the Table 2 provided below, all item loadings are greater than 0.5 (i.e. ranging from 0.504 to 0.820). The cross-loadings of all the constructs are greater than 0.620, while t-statistics derived from bootstrapping indicate that all the relationships are statistically significant. By and large, the results in Table 2, show that all the measurement items converged well on their respective constructs and that the constructs are distinct from one another – hence they are considered acceptable. Chin (1998) suggests that, research variables should have an average variance extracted (AVE) of at least more than 0.4. The composite reliability should be greater than 0.7 (convergent validity), while the inter-construct correlations should be less than the square-root of the AVE (discriminant validity). Drawing from Table 2 provided above, all the research variables exceed these criteria, with CR being 0.7, hence confirming that the research instruments are reliable. In addition to that, the square-root of the lowest AVE is 0.632 and is greater than the highest inter-construct correlation value (0.621). This confirms too the existence of discriminant validity (See, Table 3).

Table 3: Inter-Constructs Correlations Matrix

Research Variables	HS	HP	HT	CWP
Hypermarket Size (HS)	1.000			
Hypermarket Reputation (HP)	0.621	1.000		
Hypermarket Trustworthiness (HT)	0.518	0.604	1.000	
Customer Willingness to Purchase (CWP)	0.553	0.554	0.590	1.000

Note: HT = Hypermarket Trust; HS = Hypermaket Size; HR = Hypermarket Reputation; CWP = Consumer Willingness to Purchase

Figure 2: Measurement and Structural Model Results



Note: HT = Hypermarket Trust; HS = Hypermaket Size; HR = Hypermarket Reputation; CWP = Consumer Willingness to Purchase

Path Model: PLS also generates the path coefficients for the relationships modelled among the constructs. The significance of these coefficients was assessed using the bootstrap procedure (with 200 sub-samples) that provided the t-values for each path estimate. Figure 2 and Table 4 presents the results of the PLS analysis on the structural model along with the path estimates and t-values. Support for the study hypotheses, which are labelled on their corresponding paths in Figure 2, could be ascertained by examining the directionality (positive or negative) of the path coefficients and the significance of the t-values. The standardized path

coefficients are expected to be at least 0.2, and preferably greater than 0.3 (Chin 1998). Figure 2 and Table 4 above provide support for the posited five hypotheses, that is, H1 to H5.The standardised regression weights for H1 to H5 are 0.513, 0.479, 0.284, 0.531 and 0.311 respectively.

Table 4: Path Modelling Results

Posited Hypothetical Associations	Hypothesis	Standardised Regression Weights	T-Statistics	Decision on Proposed Hypothesis
Hypermarket Size (HS) →Hypermarket Reputation (HR)	H1	0.513	6.0941	Supported
Hypermarket Size (HS →Hypermarket Trustworthiness (HT)	H2	0.479	5.3761	Supported
Hypermarket Reputation (HR)→Hypermarket Trustworthiness (HT)	H3	0.284	2.6324	Supported
Hypermarket Reputation (HR)→Customer Willingness to Purchase (CWP)	H4	0.531	5.3897	Supported
Hypermarket Trustworthiness (HT)→Customer Willingness to Purchase (CWP)	H5	0.311	3.5521	Supported

Note: HT = Hypermarket Trust; HS = Hypermaket Size; HR = Hypermarket Reputation; CWP = Consumer Willingness to Purchase

Overall, R^2 for HR, HT and CWP (0.263, 0.449 and 0.556 respectively) in Figure 2, indicate that the research model explains at least 26.3% and at most 55.6% of the difference in the dependent constructs. Tenenhaus, Vinzi, Chatelin & Lauro (2005) provides a statistical formula to assess the global goodness-of-fit (GoF) of a research model as provided below:

$$GoF = \sqrt{\overline{AVE} * \overline{R^2}}$$

The calculated global goodness of fit (GoF) is 0.41. Since this calculate value exceeds the threshold of GoF>0.36 suggested by Wetzels, Odekerken-Schröder & van Oppen (2009), the study confirms the existence of the data's goodness of fit to the research model.

Discussion of Results and Implications of the Study: The results in Table 4 and Figure 2 provide support for five (5) hypotheses (H1, H2, H3, H4, and H5). Hypothesis 1 shows that there is a positive and significant relationship between perceived hypermarket size and perceived hypermarket reputations (0.513). A positive and significant association was postulated between perceived hypermarket size and perceived trust in hypermarket (0.479). Consistent with Hypothesis 2, results indicated that higher levels of perceived hypermarket size will lead to higher levels of perceived hypermarket reputation. Table 4 and figure 2 also indicated that hypothesis 3 has a positive and a significant relationship between perceived hypermarket reputation and perceived trust in hypermarket (0.284). Hypothesis 4 also posits a positive relationship and significant relationship between perceived hypermarket reputation and customer willingness to purchase (0.531). Finally, results in Table 4 and Figure 2, are in line with H5 and support the reasoning that the higher the level of perceived hypermarket trust the customers have, the higher their willingness to purchase. Therefore there is positive and a significant relationship between customers' perceived trust in hypermarket and customers' willingness to purchase (0.311).

In general, the result of this study is in line with previous research finding as the relationship between the variable as stipulated in figure 2 are found to have positive and significant relationship (Sand et al., 2009; Noyan & Simek, 2011; Netemeyer, Heilman & Maxham, 2012). As a result of the high competitive rivals between organisations, especially in the retail industries are becoming more proactive in their strategy to

gain competitive advantages. Many studies so far have researched about ways the retail industries can attract more customers' willingness to purchase as they are the revenue generator. For example, (Hino, 2010; Farhangmehr et al., 2001; Juhl, Kristensen & Ostergaard, 2002; Guenzi, Johnson & Castaldo, 2009). However, there seem to be little evidence of research that focus on the effects of hypermarket size on customer trust, hypermarket reputation and ultimately customer willingness to purchase – particularly in the African hypermarkets retailing sector. Therefore, this study is perhaps long overdue and pertinent to academics and the retailing managers in South Africa.

A significant academic contribution is made to the existing service and retailing literature by exploring the influence of perceived hypermarket size on perceived hypermarket reputation, trust and customer willingness to purchase in South Africa. In particular, the current study findings provide tentative support to the proposition that customers' perceive hypermarket size, perceived hypermarket reputation and customers' trust in hypermarket should be recognized as antecedents and tools that causes customers' willingness to purchase. In addition to that, since this study is one of the few researches that has focused on this matter in the African context, a contribution of new literature to the existing body of retailing literature is made. This generated new literature is expected to be useful to future researchers. On the practitioners' side, customer perceived hypermarket size as well as the perceived hypermarket reputation have a stronger influence on customers' willingness to purchase. Customers' perceived trust in hypermarket according to this study has a lesser influence on customers' willingness to purchase in a hypermarket. Therefore, drawing from this assertion this study suggest that hypermarket retailers or managers who want to identify some ways to attract and retain customers need to consider expanding their business by providing larger shopping space and more varieties of products so as to gain a reputable brand image which eventually precipitate the customers' willingness to buy.

5. Conclusion

The purpose of this study was to investigate the influence the influence of perceived hypermarket size on perceived hypermarket reputation, trust and customer willingness to purchase in South Africa. This study proposed five hypotheses and using data collected from Vanderbijlpark town Province in South Africa the posited hypotheses were tested. All the postulated hypotheses were supported in a significant way. Most importantly, the study provide further evidence from an African perspective that perceived hypermarket reputation and customer willingness to purchase are more likely to be influenced by the perceived size of the hypermarket. This therefore, implies that retailers should consider investing in expanding the size of their store size in order to gain a reputation that ultimately triggers customers' willingness to buy.

Limitations and Future Research: Although this study makes significant contributions to both academia and practice, it was limited in some ways, and therefore some future research avenues are suggested. First, the data were gathered from Gauteng Province of South Africa and the sample size of 180 is relatively small. Perhaps, the results would be more informative if the sample size is large and data gathered from the other eight provinces of the country are included. Therefore, future studies may be conducted by using data from other provinces in South Africa. Second, perhaps too, future studies should not be limited to South Africa, but rather consider extending this research to other African countries such as Zimbabwe for results comparison. Future studies can also extend the current research model by include other mediating variables such as customer satisfaction and loyalty to hypermarkets in the hypermarket size – customer willingness to purchase relationship. Above and beyond, this will immensely contribute new knowledge to the existing body of literature on antecedents of customer's willingness to purchase in the hypermarket retailing sector in the African setting – a research context which happens to be neglected in academics.

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Appendix 1: Measurement Instruments

Hypermarket Reputation
This hypermarket is well known.
This hypermarket has a respectable reputation in the market.
Generally, this hypermarket has a good reputation.

Perceived Hypermarket Size
This hypermarket is a very large company.
This hypermarket is the industry's biggest suppliers on the web.
This hypermarket is a big player in the market.

Hypermarket Trustworthiness
This hypermarket is trustworthy.
This hypermarket wants to be known as one who keeps promises and commitments.
I trust this hypermarket keeps my best interests in mind.
I find it necessary to be cautious with this hypermarket.
This hypermarket has more to lose than to gain by not delivering on their promises.
This hypermarket's behavior meets my expectations.
This hypermarket could not care more about servicing a person from Vanderbijlpark.

Customer Willingness to Buy
I am likely that I would return to this hypermarket
It is likely that I would consider purchasing from this hypermarket in the next 3months
It is likely that I would consider purchasing from this hypermarket in the next year
For any purchase, I am likely to buy from this hypermarket

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Determinants of Financial Sustainability of Microfinance Institutions in Ghana

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Abstract: The importance of microfinance to developmental objectives relating to access to financial services, poverty alleviation, inequality reduction, and providing a solution to financial market failure among others cannot be over-emphasized. Academic literature confirming this is abundant. However the sustainability of these institutions has been a major concern in the recent past. This study seeks to determine what drives financial sustainability of microfinance institutions within the Ghanaian context. The study follows a quantitative approach using secondary data sourced from MIX Market. An unbalanced panel dataset from 25 Ghanaian microfinance institutions over six years (2006-2011) was used. Econometric results found that sustainability of microfinance institutions is positively related to the yield on gross portfolio and administrative efficiency ratio and negatively related to staff productivity. The direction of the staff productivity is puzzling and calls for more in-depth research to understand the source of the negative relationship between high level of staff productivity and financial sustainability.

Keywords: *Microfinance Institutions, Sustainability, Ghana*

1. Introduction

The seminal paper by Stiglitz and Weiss (1989) explored the impact of imperfect information in the credit markets its linkage to market failure. The authors postulate that banks are concerned with the interest received on loans relative to the risk taken on when granting such loans. Also it observed that interest being charged on a loan impacts on the risk associated with the portfolio of loans granted (Stiglitz & Weiss, 1989:393). Consequently as a result of imperfect information banks tend to ration out credit which denies the majority of the poor from accessing financial services from traditional banks (Stiglitz & Weiss, 1989:393). Theoretical explanations for the market failure identified by Stiglitz and Weiss (1989) have been investigated in the literature. Information asymmetries and contracting in credit markets has highlighted causes (Rao, 2012:294). According to Barr (2005:279), the poor in developing countries face serious limitations in terms of access to financial services; these limitations include cost, risk and convenience factors. Other factors, such as fragmented markets, dispersed populations and underdeveloped infrastructure, result in the cost of providing financial services to the poor being relatively higher (Woller & Schreiner, 2001:2). The consequence of those factors is significant exclusion of the majority of people by the traditional system. Financial exclusion in sub-Saharan Africa is approximately 76% of adults, which is well in excess of the global average of 50%, and that of high income economies at 11% (Demirguc-Kunt & Klapper, 2012:11).

As part of the solution to credit market failure, microfinance has emerged as a flexible alternative to help the poor (Barr, 2005:279). Furthermore, microfinance has been recognised as a critical developmental tool through its objective of reducing poverty by providing financial services to those excluded from the formal financial sector (Barr, 2005:278). In considering the role of microfinance, it is clear from the literature that inadequate access to credit is regarded as a key reason for the poor remaining poor, especially in developing countries (Hermes & Lensink, 2007:1). On this note, the role of microfinance as a tool for development cannot be overemphasised, as noted also by Aveh, Krah and Dadzie (2013:17). The microfinance sector has recorded significant growth in response to the credit market failure. Over the last five decades, microfinance has exhibited staggering growth, with outreach increasing from a few thousand in the 1970s, according to Lucarelli (2005:1), to over 130 million in 2012, as estimated by Rao (2012:294). Notwithstanding the impressive growth noted above, Microfinance Institutions (MFIs) face numerous challenges, which may impede the ability to increase outreach and achieve poverty alleviation and financial inclusion objectives. Anyanwu (2004:12) refers to a few critical challenges facing MFIs, namely: (i) increasing outreach, (ii) developing a policy framework that regulates the sector, (iii) operating MFIs and the activities that are undertaken, and (iv) concern about financial sustainability of MFIs. The issue of MFI sustainability is the topic under investigation in this research paper. The sustainability of MFIs is considered a critical component in the

quest for the development of the poor, as unsustainable MFIs are not likely to achieve their objectives in terms of reducing poverty and promoting financial inclusion (Schreiner, 2000:427).

2. Literature Review

The literature pertaining to microfinance in the Ghanaian context suggests that microfinance is not a new phenomenon in the country, as many poor people have historically relied on informal banking services through the use of savings and loan schemes prior to the establishment of formal banking systems in Ghana (Bank of Ghana, 2007:3). This section presents key concepts, a theoretical debate around financial sustainability and empirical literature on financial sustainability in microfinance.

The concept of microfinance and sustainability of microfinance institutions: According to Ledgerwood (1999) and Robinson (2001) microfinance is defined as the provision of financial services, generally in the form of credit, savings and insurance, to low-income individuals. According to Robinson (2001:9), "[m]icrofinance refers to small-scale financial services – primarily credit and savings – provided to people who farm or fish or herd; who operate small enterprises or microenterprises where goods are produced, recycled, repaired, or sold; who provide services; who work for wages or commissions; who gain income from renting out small amounts of land, vehicles, draft animals, or machinery and tools; and to other individuals and groups at the local levels of developing countries, both rural and urban". Financial sustainability, in the context of MFIs, has been defined differently by various researchers. Woller et al. (1999) stated that the sustainability of MFIs can be viewed from four different angles: "financial viability, economic viability, institutional viability, and borrower viability". They also noted loan default rate as an indicator of financial sustainability as lower default rates would assist the MFI in realising future lending. The financial sustainability of MFIs is defined by Ayayi and Sene (2010:304) as the ability of the MFI to service its expenses using its revenue as well as generating a margin that can be utilised to fund the growth of the MFI. Thus the financial sustainability of MFIs refers to the ability of the institution to carry out its business without the use of subsidies (Ayayi & Sene, 2010:304). Bogan, Johnson and Mhlanga (2007:12) have identified the following components of sustainability that are relevant to MFIs:

i. Operational Self-Sufficiency (OSS), which is defined as the total financial revenue divided by the sum of financial and operating expenses:

$$Total\ Financial\ Revenue\ \div (Financial\ Expense + Operating\ Expenses)$$

ii. Operational sustainability, which is defined as having OSS of at least 100%; and
iii. Financial sustainability (FSS), which is viewed as having OSS of at least 110%.

Kinde (2012:2) states that the financial sustainability of MFIs is measured in two stages, firstly operational sustainability, and secondly, financial self-sufficiency. Meyer (2002), cited in Kinde (2012:2), defines operational sustainability as the ability of an MFI to service its operating expenses from operating revenue irrespective of whether the institution is subsidised or not. Meyer defines financial self-sufficiency as the ability of an MFI to service both operating expenses and finance charges from the institution's operating revenues. In line with the literature, this study applies Bogan et al. (2007) definition as a measure of financial sustainability.

The sustainability debate (the Institutionalist and Welfarist Approaches): Financial sustainability of the microfinance industry is characterised by a debate between two groups, labelled in the literature as the welfarists and institutionalists, differing on the approach to be followed in terms of assisting the poor through access to microfinance (Woller, Dunford and Woodworth, 1999). The Welfarist approach focuses on the achievement of financial sustainability of MFIs. Proponents of this approach favour breadth of outreach, which refers to the number of individuals serviced, over depth of outreach, which refers to the levels of poverty reached (Woller et al., 1999:30). Institutionalists, on the other hand, postulate that "financial deepening", or the creation of a separate sustainable financial services sector for the poor, is one of the primary objectives of microfinance (Woller et al., 1999:31).
It is argued that given the severity of global poverty levels, successful poverty alleviation can only be achieved through the application of large scale financial resources far in excess of those available from donors in the form of subsidies (Woller et al., 1999). Access to private capital sources by MFIs is also crucial in the fight

against poverty; however, access to these sources of capital requires that MFIs operate efficiently and profitably (Woller et al., 1999:34). Finally, Woller et al. (1999:35) postulate that institutionalists regard the approach of welfarists as a threat to the objective of industry-wide FSS through the latter's continued reliance on donor funding. Depth of outreach and a focus on improving the well-being of those participating in microfinance programmes are the critical cornerstones of the welfarist approach (Woller et al., 1999:31). Brau and Woller (2004:4) summarise the welfarist approach as follows: "[W]elfarists tend to emphasise poverty alleviation, place relatively greater weight on depth of outreach relative to breath of outreach, and gauge institutional success more so according to social metrics". They further state that whilst welfarists acknowledge the importance of financial metrics, these are not as important as they are to institutionalists, who focus less on the depth of outreach (Brau & Woller, 2004:4).

Those subscribing to the welfarist school of thought highlight their commitment to serving the very poor as a distinguishing factor over institutionalists; furthermore, the welfarists argue that whilst FSS may generally be desirable, they are unwilling to pursue it and accept that FSS is required in order to achieve their institutional objective of poverty alleviation (Woller et al., 1999:37). Reasons behind the reluctance of welfarists to pursue FSS have been aptly summed up by Woller et al. (1999:37) as follows: "if the industry embraces the institutionalist's position, it will have embarked on a potentially errant path that will have impact both on the industry itself and those whom it serves". This study has considered the two approaches, and opted for the institutionalist over the welfarist approach because of the long-term viability of the approach. The magnitude of poverty levels and erratic nature of donor funding are the key driving factors in the choice of approach followed by the researcher. The literature also highlights the importance of sustainable MFIs in the quest to reduce poverty, and the researcher regards this as further motivation to subscribe to the institutionalist approach. We acknowledge that over-emphasis may lead to mission drift as discussed in extant literature but seems to be the second best option for providing sustainable financial service to the poor.

Empirical studies relating to the sustainability of MFIs: Globally, Woller and Schreiner (2001) analysed the financial and portfolio information of 13 village banks in Colombia, El Salvador, Ecuador, Honduras, Kyrgyzstan, Malawi, Mexico, Nicaragua, Peru, Uganda, Bolivia, Tanzania and Togo over a three-year period, from 1997 to 1999, based on information obtained from the Micro Banking Bulletin (MBB), in order to define the determinants of FSS. Variables that proved statistically significant in determining FSS included the real portfolio yield, administrative expense ratio, loan officer productivity, average salary to Gross National Product ratio and average loan size (Woller & Screiner, 2001:10). Bogan et al. (2007:12), using cross-sectional data obtained from MIX Market on the top 300 MFIs, ranked by total assets, in three different continents (Africa, Asia and South America) and assessed the factors impacting on financial and operational sustainability. The size of the MFI's assets as well as its capital structure was found to be related to its sustainability. It was also found that grants as a percentage of assets is negatively correlated to the sustainability of MFIs (Bogan et al., 2007:26). Ayayi and Sene (2010) used extensive MIX Market data to identify the determinants of FSS for 217 MFIs across 101 countries in the nine-year period ending 2006. The results of the study indicated that portfolio quality, measured by PAR > 30, had the highest impact on FSS. Furthermore, interest rates that were sufficiently high, leading to profit generation, as well as good quality management practices in terms of controlling expenses were all critical factors for the financial sustainability of MFIs (Ayayi & Sene, 2010:321).

In analysing 26 MFIs from India and Bangladesh, Rai (2012) found that among other factors, the Capital/Asset Ratio, Operating Expenditure/Loan Portfolio, and Portfolio at Risk > 30 days (PAR > 30) were the largest contributors to the financial sustainability of MFIs in the two countries. Other important factors identified in the study included the Number of Active Borrowers, the Percentage of Female Borrowers in the portfolio, Borrowers per Staff Member, Yield on the Portfolio and the Age of the MFI (Rai, 2012). Within the African context, Adongo and Stork (2005:25) investigated the determinants of the financial sustainability of Namibian MFIs and concluded that none of the institutions included in the study were sustainable, a key reason for this being the fact that the interest rate MFIs require in order to breakeven exceeds that allowed in terms of the Usury Act which limits the amount of interest the institutions are allowed to charge. Further afield, in a quantitative research study using cross-sectional data obtained from MIX Market for 14 MFIs in Ethiopia in the period between 2002 and 2010, Kinde (2012) found that the factors impacting most on the financial sustainability of the MFIs were the breadth and depth of outreach, the dependency ratio and cost per

borrower. The ratio of donated equity to total capital of the MFI is referred to as the dependency ratio (Kinde, 2012). Kinde (2012) also noted that the capital structure of the MFI, along with staff productivity, did not have a significant impact on financial sustainability.

Kimando, Kihoro and Njogu (2012:40) concluded that the key factors impacting on the financial sustainability of MFIs in the Murang'a Municipality in Kenya included the regulatory regime overseeing the institutions, the repayment rate of credit that was granted, the individual lending model used and geographical coverage. Tehulu (2013:157) analysed unbalanced panel data collected from 23 MFIs in East Africa for the period 2004–2009, and found that financial sustainability correlated positively with the ratio of gross loan portfolio to assets and size. There was a negative correlation between financial sustainability and the operating expenses/asset ratio and PAR > 30 days (Tehulu, 2013:157). The existing literature in Ghana includes Richman and Fred (2010) who attempted to understand the nexus between the sustainability of MFIs in Ghana, gender composition and competition by analysing the short panel data of 72 MFIs over the period 2003–2007. These authors found a statistically significant impact relating to the proportion of men to total borrowers on OSS; this implies that having a greater proportion of men as borrowers of the MFI is associated with greater operational self-sufficiency for the MFI (Richman & Fred, 2010:13). The findings from Richman and Fred (2010) are corroborated in a study undertaken by Rai (2012) who found that the proportion of women borrowers impacted the sustainability of these institutions in Bangladesh. They both found that increased market concentration, or a less competitive market, leads to lower OSS for MFIs. MFIs in the Ghanaian market were therefore found to become less sustainable as the market became monopolistic (Richman & Fred, 2010:14).

Aveh et al. (2013) applied qualitative and quantitative approaches in investigating the relationship between business strategy and the sustainability of MFIs in Ghana. Exploratory interviews were conducted with 14 executives from a sample of MFIs to explore the microfinance environment and enhance understanding of the metrics under consideration (Aveh et al., 2013:18). Self-administered questionnaires were completed by a sample of employees at the 130 MFIs selected (Aveh et al., 2013:19). The results of the two-stage study highlighted a positive relationship between business strategies and the sustainability of MFIs; specific business strategies included "effective screening, enforcing group collateral, regular client meetings, high methods of minimising default rates, intensifying peer monitoring and innovation in financial products" (Aveh et al., 2013:26).

It can thus be concluded that the gender composition of the borrowers, market competition and business strategies impact on the sustainability of MFIs in Ghana. There are, however, numerous other factors that can also affect the sustainability of such institutions internationally, as highlighted earlier in this section. Given the limited literature pertaining specifically to the sustainability of MFIs in the Ghanaian market, the intention of this research paper is to add to the body of literature dealing with this phenomenon in the selected market. This paper will add to this literature by determining the extent to which a larger pool of variables is related to the sustainability of MFIs in Ghana. The intention is to provide practitioners as well as policy makers with a wider array of aspects relating to MFIs which can be considered when investigating the means by which these institutions can be made sustainable. The literature shows that enhancing the sustainability of MFIs promotes the achievement of developmental objectives, such as increased financial inclusion and decreased poverty levels. For these reasons, understanding the factors that determine the sustainability of MFIs in Ghana is critical.

3. Methodology

A quantitative research method, namely panel data regression analysis, was used. The dependent variable used was FSS and exploratory variables were the nine variables included in section 3.2.

Description of data and data-gathering process: Data used for the purposes of this research is sourced from a not-for-profit organisation, MIX Market. The organisation is a source of microfinance performance data, with the objective of strengthening financial inclusion and promoting transparency within the microfinance industry. MIX Market lists approximately 2,000 MFIs from across the world and provides access to relevant financial as well as social performance indicators. The organisation's headquarters are in

Washington DC, in the United States of America, and the organisation was incorporated in 2002. Other secondary sources of data that were used included relevant books, academic journal articles and internet sources, such as relevant online publications by the Ghanaian government. These were used in order to supplement the information obtained from MIX Market which only included statistics from the various MFIs.

The data available from MIX Market covers around 90 different parameters relating to MFIs. These include profile data, indicators, data on products and clients, balance sheets, income statements and portfolio reports. Prior to commencing the construction of the regression model and analysis, the extracted data was screened according to the following parameters: (i) the availability of information in terms of dates, and (ii) the completeness of data. It was evident upon sorting the data per MFI in order of date that certain MFIs had data for a longer period of time than others. After assessing the data it was decided that the regression analysis would be performed for the six year period between 2006–2011, this was done based on the completeness of the data set for this time period. Due to the fact that an unbalanced panel data set was used, it was possible for some years or variables to be omitted. For consistence reasons all MFIs with data availability of less than four years were omitted, with the research period being 2006–2011. MIX Market listed information for 46 MFIs in Ghana, and of these institutions, 21 were eliminated for the purposes of this research paper on the basis of the unavailability of data for the period noted above. A total of 25 MFIs were therefore used in this research, representing approximately 54% of the Ghanaian MFIs listed on MIX Market.

Dependent and Independent Variable Discussion: The focus of this section is on the identification and description of the dependent and independent variables used in this research. Kinde (2012:2) proposes that financial sustainability is measured in terms of operational sustainability and FSS, where operational sustainability measures the ability of the institution to service operational expenses from operational income, and FSS measures the ability to service both operational expenses and finance costs from operational income. In this research paper, FSS will be used as a proxy for financial sustainability; and is thus considered to be the dependent variable in the study. According to Ledgerwood (1999:17), "[f]inancial self-sufficiency indicates whether or not enough revenue has been earned to cover both direct costs, including financing costs, provisions for loan losses, and operating expenses, and indirect costs, including adjusted cost of capital". The definition of financial sustainability according to MIX Market is that an MFI is considered financially sustainable in the event that the organisation has an operational sustainability level of at least 110% (Bogan et al., 2007). Operational sustainability in the context of MIX Market is defined as the ratio between total financial revenue and the sum of financial expenses and operating expenses, where a level of 100% is considered operationally sustainable (Rai, 2012:2).

Despite the fact that MIX Market provides data on approximately 90 different variables, the current research was limited to the following variables:

i. Administrative expense;
ii. Average loan balance per borrower;
iii. Debt / Equity Ratio;
iv. Number of active borrowers;
v. Operating Expense / loan portfolio;
vi. Size of the MFI;
vii. Portfolio at risk (30 days);
viii. Yield on gross portfolio (real); and
ix. Staff productivity

The aforementioned factors were chosen for inclusion in the proposed regression model because these were identified as factors that influence the FSS of MFIs as noted in literature pertaining to this topic. This research also investigated the extent to which the determinants of FSS within the Ghanaian context mirrors that identified in other geographical regions, and for this reason the regression model is used in this research paper.

Data Analysis: Panel data regression analysis was employed in determining the factors impacting on sustainability. The use of panel data regression analysis as a method of answering the research question was also driven by the nature of data used and questions asked. This method has furthermore proven to be a

popular research method, as it has been used in many studies of FSS, for example by Rai (2012) and Kinde (2012). The data of the 25 MFIs in Ghana over a period stretching over six years (2006–2011) was collected from the Mix Market database. In total, there were 123 observations. Nine MFIs had information available for the full six years, resulting in 54 observations, and 16 MFIs had information for only some of the six years. There are 27 missing years in total, thus the observations from these MFIs with partial information in terms of years covered is 69 (6 * 16 – 27). The objective of running regressions is to determine the extent to which the independent variables impact on the FSS of MFIs in Ghana. The regression analysis was conducted through the use of a computerised statistical package, Stata. The descriptive statistics to be analysed include the number of observations, mean, standard deviation, maximum and minimum.

Regression model specification: The fixed effect and random effect linear panel model were used. The final model selected was based on the Hausman test (Cameron & Trivedi, 2010). According to Hedges and Vevea (1998:486) "[f]ixed-effects models treat the effect-size parameters as fixed but unknown constants to be estimated and usually (but not necessarily) are used in conjunction with assumptions about the homogeneity of effect parameters." Hedges and Vevea (1998:486) specify that "[r]andom-effects models treat the effect size parameters as if they were a random sample from a population of effect parameters and estimate hyper parameters (usually just the mean and variance) describing this population of effect parameter". As noted above, the choice of which model to use in the research paper is determined through the computation of the Hausman test.

The panel regression analysis is expressed by the following formula:

$$FSSit = \beta 0 + \beta 1(YIELDit) + \beta 2(PAR30it) + \beta 3(NUMBORit) + \beta 4(LOANSIZEit) + \beta 5(DEit) + \beta 6(OPEX/PORTit) + \beta 7(ADMINEFFit) + \beta 8(STAFFPRODit) + \beta 9(SIZEit)) + Vi + \acute{\varepsilon}i$$

Where:

FSSit = the dependent variable, which represents the FSS of firm *i* for period *t*;
YIELDit = gross portfolio yield for firm *i* over period *t*;
PAR30it = PAR30 for firm *i* over period *t*;
NUMBORit = number of borrowers for firm *i* over period *t*;
LOANSIZEit = average loan size for firm *i* over period *t*;
DEit = debt to equity ratio for firm *i* over period *t*;
OPEX/PORTit = operating expense / loan portfolio for firm *i* over period *t*;
ADMINEFFit = administrative efficiency for firm *i* over period *t*;
SIZEit = size of assets for firm *i* over period *t*; and
Vi is heterogeneity specific to a speficic MFI
$\acute{\varepsilon}_{it}$= the error term.

The impact of the independent variables on FSS was assessed by means of the statistical significance of the coefficients βi. Since we had nine variables to consider as indicated in section 3.2, we used manual forward and backward variables selection approach.

4. Results and Discussion

Descriptive Results: Descriptive statistics in Table 1 show the mean value of financial sustainability is 1.07 (107%), implying that on average the MFI sector is operationally sustainable but not financially sustainable. The average debt structure (DE)is 3.40, which indicates that the capital structure of MFIs in Ghana is leveraged to the extent of 3.40 times debt to equity. The minimum ratio is negative at -354.28, implying that the capital structure of some MFIs is equity-funded as opposed to debt. The maximum value relating to this variable is 21.83 times, which indicates that some institutions in the country are highly leveraged relative to the mean. The observed debt is high when compared to the 2.27 times found by Kinde (2012) in a study focusing on the Ethiopian market. Whilst Ghanaian MFIs in this study reflected higher levels of leverage compared to Ethiopian counterparts, it is noted that high leverage is a feature of both these markets as in both instances a much larger proportion of debt relative to equity is employed by the MFIs. The literature confirmed an adverse relationship between the debt to equity ratio and the sustainability of MFIs (Hartarska & Nadolnyak, 2007). Institutions in Ghana are thus encouraged to introduce higher levels of equity into their respective capital structures in order to enhance the ability of these institutions to reach sustainability.

Gross Portfolio Yield (YIELD) reflects the revenue the MFI generates from the assets it has under management, and the revenue generated from the loans extended to borrowers. The lower the YIELD, the less the MFI generates per unit lent to borrowers. The mean YIELD in this study was found to be 29%, meaning that institutions generate 0.29 of revenue for every 1.00 advanced to borrowers. The standard deviation is 16%, with the minimum and maximum values being -10% and 63% respectively. This indicates that the more profitable MFIs generate yield well above the median, with less profitable institutions generating negative revenues and thus being loss-making. High interest rates charged by MFIs are not an unusual occurrence and, as noted by Guntz (2011:23), the global average microfinance interest rate charged was approximately 25%, with rates of between 50% to 80% being not uncommon. It is thus noted that the interest rates charged by Ghanaian MFIs, whilst exceeding the global average, is not considered excessively high. In practice, this could aid both the sustainability and outreach objectives of these MFIs.

Table 1: Descriptive statistic results obtained

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
FSS	102	1.07	0.34	0.08	2.50
De	99	3.41	4.14	-14.31	21.83
Yield	85	0.29	0.16	-0.10	0.63
opexport	87	0.43	0.22	0.05	1.13
par30	82	0.07	0.06	0.00	0.34
admineff	106	79	118	0	500
staffprod	84	391	315	18	1336
adminex	97	955,700	1,348,297	6,125	5,203,018
size	108	9,301,430	13,100,000	36,779	61,800,000
numbor	106	13,828	22,002	50	133,420
loan size	106	505	593	33	3,399

Source: Researcher's own computation

The Operating Expenditure Ratio (OPEXPORT) is often used as a proxy for MFI efficiency. Thus, the lower the ratio, the higher MFI efficiency would be. In the current study, it was found that the mean OPEXPORT is 42%, which implies that for every unit lent to borrowers, the MFIs incur 0.42 unit of operating expenditure. The minimum and maximum values for this variable range from as low as 5%, implying an efficient MFI, to as high as 113%, which implies a very inefficient institution. In terms of this ratio, MFIs in Ghana appear to lean towards being managed in an inefficient manner, given the high OPEXPORTs. The abovementioned mean of 42% is higher than the 19% found by von Stauffenberg (2003:17). An implication of a higher operating expense structure is reduced profitability, and thus a reduced likelihood of reaching sustainability as MFIs with higher OPEXPORT ratios are considered less efficient (Tehulu, 2013:157). Practically, MFIs in Ghana would need to revisit their operating expenses in order to enhance sustainability.

Portfolio at Risk 30 days (PAR30)provides the researcher with an indication of the quality of loans in the MFIs portfolio. The correlation between PAR30 and sustainability is negative, thus the higher this ratio, the less sustainable the MFI is likely to be. From this perspective, MFIs in Ghana do not appear to have poorly performing loans on their books. The mean PAR30 value is 7%, with maximum and minimum results of 34% and 0% respectively. The aforementioned results compare favourably to other regions. Lafourcade, Isern, Mwangi and Brown (2005:12), for example, found the global average in terms of PAR30 to be approximately 5.2%, with African MFIs averaging 4.0%, South Asian MFIs 5.1% and East Asian MFIs 5.9%. The results obtained in this research show that the PAR30 ratio for MFIs in Ghana exceeds that of the aforementioned markets. This does not bode well for the sustainability of Ghanaian MFIs, as a higher PAR30 ratio implies lower portfolio quality and ultimately lower sustainability. Practically, MFIs in Ghana should focus on improving the quality of loans on their books in order to enhance their sustainability.

Administrative Efficiency (ADMINEFF) relates to the cost the MFI incurs in order to extend and manage loans granted to borrowers. This ratio is positively correlated with the sustainability of the institutions. Thus, the more efficient the institution is, the more sustainable it is likely to be. Administrative Efficiency is measured in terms of Cost per Borrower, which in turn is calculated as Administrative Expense / Number of Borrowers. The mean ADMINEFF is USD79.33, with a standard deviation of USD117.53. The minimum and maximum values vary significantly at USD0.00 and USD499.81 respectively. According to Lafourcade et al. (2005:12), the average cost per borrower was USD72 among reporting African MFIs. It is noted that the Cost per Borrower is lowest in the East African region, at USD58, with the West African region having the second lowest Cost per Borrower of USD77. Based on the results obtained in the current study, the mean Cost per Borrower of Ghanaian MFIs, USD79.33, is slightly higher than the averages for East Africa (USD58), West Africa (USD77) and the overall average (USD72). It is concluded that Ghanaian MFIs are inefficient compared to the three regions noted above, but outperform in terms of efficiency when compared to Central Africa (USD84), the Indian Ocean (USD240) and the Southern Africa regions (USD83). It is thus concluded that there is room for improving the administrative efficiency of Ghanaian MFIs in order for the sustainability of these institutions to be enhanced.

Staff productivity (STAFFPROD) measures the efficiency of staff, as it considers the number of staff required to generate a certain level of output in terms of services provided to the MFI's clients. The mean in terms of staff productivity is 391.21, with a standard deviation of 315.48. The minimum and maximum results are wide-ranging, at 18.33 and 1,336.17, respectively. The ratio measures the number of borrowers managed per staff member, thus the higher the ratio, the better from a sustainability perspective. Some inefficient MFIs in the Ghanaian market have a staff productivity ratio of 18.33 borrowers per staff member, whilst more efficient institutions have a ratio of 2,509.00, implying that the latter institutions are highly efficient and sustainable. When compared to Lafourcade et al. (2005:13) findings, it is noted that Ghanaian MFIs are efficient as the mean of the institutions in this study (391.21) comfortably exceeds that observed in MFIs in Central Africa (85), East Africa (132), the Indian Ocean region (29), Southern Africa (150), West Africa (177) and the global average of 143.

The size of MFI (SIZE) is measured in terms of the total outstanding borrowings. The literature suggests that scale is an important contributor toward MFI sustainability. Increased size thus leads to increased sustainability. The portfolio sizes of the respective MFIs vary greatly, with a mean of USD9,301,430, a maximum value of USD61,815,018.29 and a minimum value of a mere USD36,778.91; the standard deviation in this study was USD13,100,000Authors. Relative to the African average of just over USD8,000,000 (Lafourcade et al., 2005:5), the Ghanaian MFIs in the current study were found to be above average. The SIZE is important as increased scale results in the institution extracting benefits from economies of scale in its operations, which leads to higher levels of profitability and, ultimately, increased sustainability of the institution.

Number of Borrowers (NUMBOR) relates to the number of individuals served by the MFI, which is known as breadth of outreach. The literature reveals that there is a positive relationship between the breadth of outreach and the sustainability of MFIs. Wider outreach therefore leads to the increased sustainability of MFIs. The results in this regard vary significantly, with the mean of 13,828 and standard deviation of 22,002. The maximum and minimum numbers of borrowers observed are 133,420 and 50, respectively. In this study, it is noted that the standard deviation exceeds the mean; this indicates that there are MFIs in Ghana with a smaller breadth of outreach. According to Kinde (2012:6), the MIX Market benchmark in relation to the number of borrowers is as follows:

i. Large (>30,000 borrowers);
ii. Medium (10,000–30,000 borrowers); and
iii. Small (<10,0000 borrowers).

Based on the data set used in this study, it is concluded that Ghanaian MFIs are medium in scale, as the mean falls within the range required in order to be classified as such according to the MIX Market benchmarks above. Breadth of outreach according to the literature refers to the number of poor individuals served by the MFI (Kinde, 2012:3). In the current study, the numbers served are low compared to that found by Kinde (2012). In the latter study, the mean exceeded 130,000 borrowers and the maximum number of individuals

served was over 700,000. It is thus concluded that in order for Ghanaian MFIs to improve in terms of sustainability, these institutions would have to increase the number of individuals served. Average Loan Size (LOANSIZE) measures the depth of outreach and deeper outreach implies greater outreach because loan sizes become smaller as outreach deepens. The literature postulates that the negative relationship between the sustainability of MFIs and LOANSIZE is due to the fact that assessing the affordability of the poor, a highly heterogeneous group, becomes more difficult as the poor have been found have been to be less able to signal their ability and willingness to repay borrowings (Navajas et al., 2000:9). The mean LOANSIZE equates to USD505.33 and the standard deviation is USD593.39. Minimum and maximum results for this variable are USD33.07 and USD3,398.85 respectively.

The average outstanding loan per borrower among MFIs reporting to the Micro Banking Bulletin is USD307 per borrower, according to Kinde (2012:6). Thus it is concluded that the MFIs in Ghana extend loans which are much higher than the average reported in the previous literature; this implies that loans are being granted to relatively wealthier individuals. Lower loan amounts are synonymous with greater depth, but also with reduced sustainability. The fact that Ghanaian MFIs provide relatively higher loans to their borrowers thus has a positive impact in terms of the sustainability of these institutions. On the other hand, higher loan sizes result in less borrowers being served and thus has an adverse impact in terms of the depth of outreach of the MFIs included in this study.

Econometric Results: The research question in this research paper sought to establish the key determinants of sustainability pertaining to MFIs in Ghana. The results of the current study are shown in Table 2.Based on our data, yield was the only variable which had a significant positive influence on financial sustainability. This confirms the existing empirical literature that high levels of profit are associated with financial sustainability (Marwa & Aziakpono, 2015). A ratio of operation cost to loan portfolio and staff productivity has a significant negative influence on sustainability as demonstrated in Table 2. The higher level of operating expenditure to loan portfolio indicates a higher level of inefficiency during the intermediation process which has a negative effect on financial sustainability. This is in line with theoretical expectations. We expected that a higher level of staff productivity would lead to a higher level of financial sustainability because of increased efficiency, but surprisingly our results contradict our expectation.

Table 2: Regression Results for Random Effect Model

OSS	Robust Coefficient	Standard Error	z	*p*>|z|	[95% Confidence Interval]	
de	-0.01	0.01	-1.01	0.31	-0.02	0.01
lsize	-0.01	0.03	-0.40	0.69	-0.07	0.05
yield	**0.66**	**0.34**	**1.94**	**0.05**	**-0.01**	**1.34**
opexport	**-1.08**	**0.28**	**-3.80**	**0.00**	**-1.64**	**-0.52**
par30	-0.69	0.45	-1.53	0.13	-1.56	0.19
ladmineff	0.01	0.03	0.30	0.77	-0.05	0.06
lstaffprod	**-0.08**	**0.02**	**-4.42**	**0.00**	**-0.11**	**-0.04**
_cons	2.04	0.48	4.22	0.00	1.09	2.99
sigma_u	0.193					
sigma_e	0.106					
rho	0.768	(fraction of variance due to u_i)				

Source: Researcher's own computation

The other variables included in the regression model were PAR30, the debt to equity ratio, the administrative efficiency ratio and the size of Ghanaian MFIs but these reflected an insignificant impact on the sustainability of MFIs in Ghana.

5. Conclusion and Recommendation

This research was undertaken in order to investigate the key determinants of sustainability among Ghanaian MFIs. The literature has highlighted the impact of MFIs on addressing credit market failures resulting from traditional commercial banks neglecting the poor. The key variables which had a significant influence on financial sustainability were lower levels of expenditure per loan portfolio and staff productivity. The direction of the staff productivity is puzzling and calls for more in-depth research to understand the source of the negative relationship between high level of staff productivity and financial sustainability.

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Perception of the Effects of Substance Abuse among University Students: A Case of Built Environment and Civil Engineering Students at a South African University in Gauteng Province

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Abstract: Substance abuse among youths is a worldwide epidemic that impacts negatively on the health sector as well as the family and society. Early student life at the university is a time of tremendous high motivation to conform to the behaviours, values and attitudes that are valued by the student culture. However, students observe their peers' behaviour and alter their own behaviour with their peers' norms and expectations. Some of the perceived peer norms can however lead to substance abuse, which has led students' not to complete their education. Therefore, the main aim of this study was to determine students' perception on the effects of substance abuse on their physical, cognitive and affective development. The research philosophy adopted was positivism and the approach was deductive. Hence, a self-administered questionnaire containing items developed from literature review was administered to 199 built environment and civil engineering students at a South African university. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 21. The reliability for internal consistency of the measured constructs i.e. physical, cognitive and affective was determined using Cronbach's alpha test. Independent sample t-test was used to test the hypotheses on the perception of students who had experimented on drugs and those who had not experimented on drugs on their physical, cognitive and affective development. The results suggest that over 40 percent of students in this university are not aware of the substance abuse policy. Furthermore there was no statistical significant difference on the perception of the effect of substance abuse on students who had experimented on drugs and those who had not experimented on drugs on their physical and affective development. However, there was a significant difference on the effect on their cognitive development. It is recommended that students at this university should be made aware of the substance abuse policy. Furthermore, those who experimented on substances e.g. drugs indicated less perception on their effects on their cognitive development. It is recommended that this cohort of students warrants further research.

Keywords: *Built Environment, Effects, Engineering, Perception, Students*

1. Introduction

It is probably uncontroversial to state that all university campuses struggle with containing and controlling alcohol and drugs consumption by their students, this was highlighted in a discussion with the vice chancellor and members of staff of this university being researched (Vice-Chancellor university campus visit, 2014). This sentiment is supported by the study of Dlamini et al. (2012) which inferred that alcohol is still freely available on campus. Substance abuse could be exacerbated with the age at which students first enter such institutions. An age of freedom and experimentation, where young students have the opportunity to test the limits previously set by parents and schools. Parents expect a university to provide a nurturing environment for their children which would be conducive to studying. It is expected that a university should provide a safe, enriching and rewarding educational experience for a student. This will ensure that students would develop their social and intellectual skills without any hindrances. However, recent news reports about South African university campuses have led to speculation about the safety of students on campus (Flanagan, 2011). According to Towl (2004) alcohol consumption has been described as a core component of student culture and is seen as a defining feature of tertiary education lifestyle. Alcohol is among the most abused substances in South Africa. Furthermore, substance indulgence has prompted students to lose focus on their primary reason for embarking on a study in higher education.

Students normally enter university to further their studies and acquire knowledge so they can improve their chances of entering the job market. Students' fees are a substantial expense for parents and guardians especially when no bursaries are secured. Students aspire to obtain qualifications which would equip them with skills to follow noble career paths. These students would expect to have a positive experience that will contribute towards successfully completing their studies. Many students believe that higher education is a

genuine place for one to enjoy academic bliss. Aside from the high colour paraphernalia and sophisticated digital media used for promoting students enrolments, students need to understand that university is another community within which advantages and disadvantages exist. Every university in South Africa faces challenges and students ought to be aware of these challenges. Students should not be deceived into thinking that they have entered an ideal educational environment which is free from the influences of drugs and alcohol abuse and similar vices (Dlamini et al., 2012). According to Botvin et al. (1990) some students who have experimented on substances such as tobacco, alcohol eventuates in compulsive patterns of use characterized by psychological and physical dependence. This paper examines students' awareness of substance abuse policy and their perception of effect of substance abuse on their physical, cognitive and affective development.

Creating a substance abuse free environment: The ambience of a "watering hole" is entirely different from that of a library or learning centre. Any attempts to merge these two environments would be a certain recipe for disaster. Universities need to take a firm stand to ensure that such calamities are prevented. According to the Shellenbarger (2011), survey conducted in Purdue University showed a sharp drop in drinking among students from 48% in 2006 to 37.3% in 2009. Much of this success is attributed to a new trend in alcohol free events on or around campus grounds. According to the Higher Education Centre (2011) a comprehensive approach has been developed to assist students with alcohol use, which addresses the issues not only through educational channels but also by bringing about change at the institutional, community, and public policy level. The premise of this approach is grounded in the principle that people's attitudes, decisions, and behaviour and those that relate to alcohol use are shaped by the physical, social, economic, and legal environments. This Centre argues that many aspects of this environment can be shaped by campus and government officials. This model, termed environmental management, has since been supported by scientific research for its effectiveness in bringing about lasting and positive change on a college campus.

Environmental management: According to the Higher Education Centre (2011), environmental management addresses several factors that, though they may vary in the degree to which they exist on a college campus, have significant effects on students' decisions regarding alcohol use. These factors are:

- Students' lack (or lack of awareness of) adequate social, recreational, and extracurricular options to deter them from drinking;
- Students' perception of a strong normative pressure to drink in college;
- College students are often the targets of aggressive marketing and promotion tactics by the alcohol industry;
- Alcohol is often abundantly available on and around college campuses; and
- Campus and local laws and policies on alcohol can be vague or non-existent and are not always consistently or adequately enforced.

The Higher Education Centre (2011) states that in order to further the target and address these factors, a strategy driven approach has been devised which should be adapted to each campus needs and problems. The following are some suggestions:

- To offer and promote social, recreational, extracurricular, and public service alcohol-free options which will be integral to avoiding the promotion of alcohol within the campus grounds. To create a social, academic, and residential environment that supports health-promoting norms that would help sustain the initiative to assist students who consume alcohol on campus;
- To restrict marketing and promotion of alcoholic beverages both on and off campus as this will reduce the temptation to consume alcohol;
- To limit alcohol availability both on and off campus which would help remove the element of convenience in purchasing or obtaining alcohol;
- To further develop campus policies and enforce laws at campus, local, state, and national levels; and
- In order to drive this effort forward, it is recommended that the university body measure the extent of the problem as well as the nature of the problem and not ignore the factors that propel the use and consumption of alcohol on campus.

The effects of substance abuse: The effects of substance abuse on the development of tertiary students can occur in the following areas:

- Their physical development; and
- Psychological development i.e. cognitive and affective development.

Physical development: Physical development of a person concerns the growth of the body. This entails changes in the proportions between different parts of the body and changes in the internal structure and functioning of the body (Gouws & Kruger, 2003; Vrey, 1996).

Effects of substance abuse on physical development: Substance abuse has, amongst other, the effects on the physical development of the student. Smoking drugs such as marijuana causes various respiratory problems and diseases such as daily coughing, acute chest illness and risk of lung infections (National Institute on Drug Abuse, (NIDA, 2014; South African National Council for Alcohol and Drug Dependence (Sanca, 2004). Furthermore, smoking can aggravate asthma and prevent enough oxygen and nutrients from nourishing the skin, giving rise to bad skin and a disease called psoriasis (Life scope, 2004). Furthermore, continued smoking causes breakdown of lung tissue and clogging of the air sacs (Izenberg and Lyness, 2002). Based on the aforementioned discussion the researchers infer that student will be less active in sports performance. The student will suffer from increased heartbeat, poor blood circulation and shortness of breath making it difficult for him to engage in activities that students of his age group engage in. Drug abuse may make the student giddy, stagger, lose balance and will affect his motor co-ordination (Sanca, 2004). Motor dysfunction (especially dysfunction regarding fine motor co-ordination as required for articulation, writing and eye movements) may cause students to experience speaking, writing and reading difficulties (Jeram, 2009). Substance abuse robs the body of essential vitamins and minerals and interferes with the digestion of food (Sanca, 2004).

Psychological development: Psychological development refers to the development of mental characteristic or attitude of a person with specific emphasis on those factors affecting behaviour in a given context (Allen, 1993). The psychological development of the student will be discussed by distinguishing between the cognitive and affective aspects.

Cognitive development: The term cognitive development refers to the continuous and cumulative development of the intellect and has to do with thinking skills, creatively, perception, conceptualization, insight, knowledge, imagination and intuition (Jeram, 2009). According to Du Toit and Kruger (1994) and Vrey (1996) secondary school learners display different characteristics during their cognitive development. The authors believe that these characteristics will also be experienced by university students. The student will have a conscious focus on the world and acquires knowledge of the world in a cognitive and formal manner. They acquire further new skills in calculation of mathematics, physics and also incorporate new concepts in his knowledge structure. Furthermore, the student is expected to remember information and apply the information when solving problems and be able to reproduce it a later stage. The student can communicate effectively and his vocabulary is large enough to follow teaching. Perceptually, the student can assign meaning to sensation and can recognize, memorize, integrate, differentiate and imagine. The student learns by personal experience and by active participation. His attention span improves and he is able to concentrate for longer periods. The student is capable of devoting himself seriously to his tasks and completing them properly. Furthermore the student is willing, eager and ready to learn (Jeram, 2009).

Effects of substance abuse on cognitive development: Substance abuse can affect the cognitive development of the students in the following ways:

Substance abuse interferes with a good nutrient supply to the brain and may result in brain damage, which is done in a cognitive and formal manner. Excessive alcohol use causes the brain to age prematurely. Brain disorders commonly associated with alcoholism are Weenicke's Syndrome, Koraskoff's Psychosis and Marchiafava's Disease (Bezuidenhout, 2004). The use of addictive substance over a long period of time may impair the memory and problem solving abilities of the student (NIDA, 2014). This has serious consequence on academic achievement as well as appropriate life decisions that a student has to make.

Furthermore, it erodes the self-discipline necessary for learning. The student may experience problems with reading, calculating, writing and incorporating new concepts into his knowledge structure. Ultimately, the

student may experience falling grades and may drop out of school (Jeram, 2009). The student who abuse alcohol finds it more difficult to be cautious and to use good judgment to protect him/herself. They find it more difficult to think clearly because the more they drink, the more slowly their brain works (Lifescope, 2004). This in turn can lead to difficulty in reading, calculating and writing skills. Marijuana smoking may result in the loss of short-term memory and impairs a person's ability to learn and concentrate, which in turn affects his problem solving abilities and the ability to reproduce information at a later stage. The marijuana user experiences a lack of initiative, motivation and concern about the future (Ravesafe, 2003).

Affective development: The affective development is an emotional development concerned with emotions, feelings, passion, moods, sentiments and whims and determines the students' personality (Van den Aardweg and Van den Aardweg, 1990). The students emotions are aroused by internal rather that external factors. The student shows a greater understanding for the feelings of others and simultaneously displays a greater degree of empathy and sympathy. They also express, control, suppress or hide emotions according to social rules thus meeting the requirements of his cultural groups, his peer group and his community. The students express aggression (anger, rage, stubbornness) becomes more refined and he/she uses the social skills that he/she has acquired to cope, i.e., communication and co-operation. Anger and rage make him moody and he/she will sometimes tend to use force to solve his/her problems or relieve his frustrations (Jeram, 2009). Happiness and cheerfulness is expressed within the confines of his peer group to which he constantly strives to be accepted. The student often prefers to gloat at a friend's defeat rather than express happiness outwardly for social reasons. They understand moods and mood changes and the positive and negative feelings with which they leave him. Furthermore the student learns to suppress his emotions leading to stress, depression, feelings of discontent and bad moods. They also learn to rid themselves of unpleasant feelings by having a good cry, doing rigorous exercise or having a good laugh (Jeram, 2009).

Effects of substance abuse on affective development: The following are some of the effects that substance abuse may possibly have on the affective development of the students: Alcohol intake can lead one being talkative and friendly or aggressive and angry. It can also alter emotions, movement, vision and hearing. In addition to this it can make people do embarrassing things like throwing up or urinating on themselves (Rutherford, 2004). Furthermore, alcohol intake causes a student to become more angry and stubborn or get into a rage without much provocation. The student has not learnt to express control, suppress or hide his emotions in line with expectation of his peer group, his cultural group and his community. Substance abuse can weaken a person's inhibitions, dull the common sense, bring out sexually aggressive behaviour and make the student more egocentric (Rodgers, 2011). Students sometimes attempt to hide feelings and emotions by abusing substances. The "high" that the substance abuser experiences can be a very happy or "spaced out" feeling or a feeling that he has special powers like the ability to fly or get rid of all his problems (Brown, 2004). Since substance abuse has interfered with the students' ability to suppress his emotions, the student may display anger, rage, stubbornness and jealousy in an open and less refined manner (Jeram, 2009).

Marijuana use has been noted for blunting emotions and for making the student paranoid. The student will most probably end up becoming suspicious and fearful of the people around him causing him to bed-wet, stammer, boast, be anxious or engage in noisy behaviour, which are symptoms of suppressed fear (Bowman, 2002). Jealousy may be displayed by anger, rage and the use of force rather than by teasing, lying and bullying. Substance abuse and addiction may cause stress and anxiety, which in turn may cause the user to increase the substance dosage to cope with the situation. When this fails, the individual may suffer from uncontrolled depression and may commit suicide (Rodgers, 2011). Once the student becomes psychologically dependent on drugs and alcohol they find it difficult to stop. Bezuidenhout, (2004) inferred that 90% will experience some degree of relapse. Even if the student wishes to stop they will not know how to because they have relied on substance abuse to resolve problems and escape from the reality. The student may become less co-operative, less friendly and less sensitive to others who may want to assist him.

Problem statement: It has been indicated that substance abuse is rampant among university students in South Africa. This could lead to health problems of the students and poor performance in their studies. The purpose of this research was to determine the effects of substance abuse among university students and further determine their awareness of substance abuse policy of the university. In order to achieve the purpose of the research the following research questions were set:

- What is the awareness of substance abuse policy among the university students?
- What are the perception of the effect of substance abuse among university students who have experimented on the substance and those who have not experimented on the substance pertaining to their physical, cognitive and affective development?

The following specific objectives were set:

- To determine the awareness of substance abuse policy among the university students; and
- To determine their perception of the effects of substance abuse among students who have experimented on the substance and those who have not

Furthermore, the following hypotheses were tested:

- *(H1)* There is no significant difference on the perception of the effect of substance abuse on physical development between the students who have experimented on the substances and those who have not experimented on the substances;
- *(H2)* There is no significant difference on the perception of the effect of substance abuse on cognitive development between the students who have experimented on the substances and those who have not experimented on the substances; and
- *(H3)* There is no significant difference on the perception of the effect of substance abuse on affective development between the students who have experimented on the substances and those who have not experimented on the substances.

2. Methodology

The research philosophy of the study was positivism and adopting a deductive approach. Based on the research philosophy and approach adopted in this study the review led to the identification 23 items measuring three constructs i.e. physical, cognitive and affective depicting the effect of substance abuse on students. The use of structured questionnaire survey in an in-depth exploration of the constructs underlying the subject matter of the research was used. Creswell (1994) describes a survey as a quantitative or numeric description of some fraction of the population – the sample, which enables researchers to generalize their findings from a sample of respondents to a population within the limitations of the sampling method. A purposive sample was used where the researchers selected sample members to conform to some or other criterion in this case university students. The respondents were reading for the qualifications on Baccalaureus Technologiae (BTech) Civil Engineering, Construction Management or Quantity Surveying programs. Furthermore, those who were reading for National Diploma in Civil Engineering and Building were also included. A total of 199 usable questionnaires were gathered of which 51 were reading for National Diploma in Civil Engineering, 137 pursing National Diploma in Building and 11 were reading for BTech in Construction Management, Quantity Surveying and Civil Engineering. This sample size was sufficient to meet the statistical test requirements for group statistical testing. As part of the delimitation process (Creswell, 1994) of this research, few respondents reading for BTech in quantity surveying, civil and construction management did not complete the questionnaire. This limits the generalization of the sample.

Purposive sampling is a non-probability method of sampling it is impossible to evaluate the extent to which such samples are representative of the relevant population (Welman & Kruger, 2001). In some respects purposive sampling gives the research qualities of a case study (Creswell, 1994). These problems with generalizing from the sample to the whole population of built environment and civil engineering students are limitations of the research design and fully acknowledged in this research. The questionnaire surveys were administered under controlled lecture room conditions to ensure the standardization of data gathering, to decrease non-response errors and to increase response rates (Cooper & Schindler, 1998). The data was gathered using self-administered questionnaires (Leedy, 1997). Furthermore, as the questionnaires were completed anonymously, the collection of the data and the presentation of this report cannot harm the respondents or their organization in any way. The need for content validity was not established as no, pilot study and pre-testing was done on the questionnaire. The structured questions were analyzed using the Statistical Package for the Social Sciences (SPSS) version 21. This resulted in the computation of frequencies, parametric statistics in the form of independent sample t-test to test the hypotheses set. The reliability for

internal consistency of the constructs of physical, cognitive and affective development was determined using Cronbach's alpha test (Cooper & Schindler, 1998). Hair et al. (2006) advocated for a cut-off value of 0.70 and above as sufficient in achieving internal consistency of a construct. This cut-off value was adopted for this present study.

3. Results and discussion

The result in Table 1 indicates that majority, i.e. slightly over 61% of students were male and 38 % were female. This is an indication that gender transformation is taking place in the faculty of the built environment and engineering. It can be indicated that this particular university is adhering to the South Africa government policy of allowing female to purse built environment and engineering qualification. Furthermore majority of the students were Blacks (92.0%), Whites (5.0%), Indians (1.5%) and Coloureds (1.5%). As per the qualification the students were pursuing 25.6% were reading for National Diploma in Civil Engineering, 68.8% pursing National Diploma in Building and 5.5% were reading for Baccalaureus Technologiae (BTech) in Construction Management, BTech Quantity Surveying and BTech Civil Engineering.

Table 1: Demography of the respondents

Gender	Frequency	Percentage
Female	75	38.1
Male	122	61.9
Race		
African/blacks	183	92.0
Coloured	3	1.5
Indian	3	1.5
White	10	5.0
Qualification registered for		
National diploma civil	51	25.6
National diploma building	137	68.8
BTech construction management	4	2.0
BTech quantity surveying	5	2.5
BTech civil engineering	2	1.0

The result in Table 2 indicated that slightly over 40 percent of students in this university are not aware of the substance abuse policy in the university. This might be the reason why students are using drugs and abusing substance in the campus.

Table 2: Awareness of the university substance abuse policy

Awareness	Frequency	Percentage
Yes	79	40.1
No	118	59.9

The result in Table 3 indicates that the physical development construct was measured using six items. The combined reliability for internal consistency of the construct physical development was above the required cut-off of 0.70 at 0.86 advocated by Hair et al., (2006). This is an indication that the measures (items) for physical development are reliable and can be reused in other similar studies. An independent sample t-test was conducted to compare the physical development scores of students who have experimented on substances and those who have not experimented on substance i.e. drugs etc. There was significant difference in scores for students who have experimented on drugs (M=3.17, SD=1.08) and those who have not experimented on drugs (M=3.56, SD =1.00, t(168)= -2.24, p = 0.03, two tailed). Therefore, rejecting the null hypothesis (*H1)* stated and accepting the alternative hypothesis. Those who had not experimented on the substance perceived that the effect of substance abuse on physical development was significant than those who had experimented on the substances. The groups mean score was 3.17 and 3.56 respectively. Those who

had experimented on the substances e.g. drugs might be in denial that drugs affected their physical development.

The result in Table 3 further indicates that the cognitive development construct was measured using eight items. The combined reliability for internal consistency of the construct cognitive development was above the required cut-off of 0.70 at 0.9 advocated by Hair et al., (2006). This is an indication that the measures (items) for physical development are reliable and can be reused in other similar studies. Furthermore, an independent sample t-test was conducted to compare the cognitive development scores of students who have experimented on drugs and those who have not experimented on drugs. There was no significant difference in the mean scores for students who had experimented on drugs (M=3.24, SD=1.05) and those who had not experimented on drugs (M=3.43, SD =0.88; t(123.02)= -1.20, p = 0.23, two tailed) as the p-value was greater than 0.05. Therefore, accepting the null hypothesis (*H2)* stated. This is an indication that the effect of substance abuse on cognitive development of the students was not different. However, the groups mean score was 3.24 and 3.43 respectively. The mean scores indicated that the students were neutral on the effects of substance abuse on their cognitive development.

Table 3: Perception of students who have experimented on drugs and those who have not experimented on drugs on the effects on the physical, cognitive and affective development

Variable: Physical development	**Items=6**		**Cronbach alpha = 0.86**
Variable	Levene test of equality of variances	*t*-value	Sig.(*p*)
Physical development	0.22	-2.24	0.03
Variable: Cognitive development	Items=8	Cronbach alpha = 0.91	
Variable	Levene test of equality of variances	*t*-value	Sig.(*p*)
Cognitive development	0.02	-1.20	0.23
Variable: Affective development	Items=9	Cronbach alpha = 0.92	
Variable	Levene test for equality of variances	*t*-values	Sig.(*p*)
Affective development	0.01	-3.53	0.001

Finally, the result in Table 3 indicates that the affective development construct was measured using nine items. The combined reliability for internal consistency of the construct physical development was above the required cut-off of 0.70 at 0.92 advocated by Hair et al., (2006). This is an indication that the measures (items) for cognitive development are reliable and can be reused in other similar studies. An independent sample t-test was conducted to compare the affective development scores of students who have experimented on drugs and those who have not experimented on drugs. There was significant difference in scores for students who have experimented on drugs (M=2.88, SD=1.07) and those who have not experimented on drugs (M=3.41, SD =0.80; t(131.31)= -3.53, p = 0.001, two tailed). Therefore, rejecting the null hypothesis (*H3)* stated and accepting the alternative hypothesis. Those who had not experimented on drugs perceived that the effect of substance abuse on their affective development was significant than those who had experimented on drugs as the groups mean score was 2.88 and 3.41 respectively. Those who had experimented on the substances might be in denial that the substances they used did not affect their affective development.

4. Conclusion

The students at this university should be made aware of the substance abuse policy which would assist them to understand the repercussion of their health when they abuse the substances e.g. drugs, alcohol etc. Furthermore, those who experimented on the substances indicated less perception on the effects of the substance on their cognitive development compared with those who had not experimented on the substances. This needs to be investigated further using interviews with the students.

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The Determinants of Tourism Demand in Turkey

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Abstract: Using data of the inbound tourist arrivals to Turkey from France, Germany, UK, US, and Netherlands over the period 1986-2012, we applied autoregressive distributed lag (ARDL) approach to test for cointegration, and we estimated long run model and error correction model for tourism demand. The results referred that the most significant factor determines inbound tourist flows are the real per capita income and real effective exchange. We found weak effects for price and financial crisis, but the political events played a strong role differed from country to other. The added value of this article is the estimation of international tourism demand in Turkey using new approach and the newest data for Turkey

Keywords: *Economics, Econometric, Turkey, tourism demand, ARDL*

1. Introduction

The temporary movement of people from their living place to another, to meet their social, cultural and psychological needs, like traveling, sightseeing, relaxation, health, education and fun can be defined as tourism Kar et al. (2004). Besides its social and cultural dimensions, that is mostly considered, tourisms economic aspects also has become one of the fastest growing industry of the world economy since the second half of 20 century (Çimat & Bahar, 2003). Tourism activities also serve as a driving force for development of other sectors as well. Besides the contribution to national income, Tourism also is an important source for foreign currencies, and plays an important role on filling balance of payment deficits. Having the advantage of being one of the highest intensive labors, tourism provides employment opportunities to a large mass of people. In addition tourism maintains to be an effective marketing and advertisement tool for the country. It's observed that, Since the 1950s the economic importance of tourism is apprehended and the activities of this area are encouraged, touristic investments and other related investments that are essential for the development of tourism like transportation has increased rapidly (Ünlüönen & Tayfan, 2009). Also there is an important specialty for tourism sector, that is the fast recovery from and adjusting to crisis (UNWTO, 2014, P.1-6).

Turkey's active foreign tourism has started to show a significant improvement particularly since the 1980s, and has become one of the great contributions that provide sources of income for the country. It's providing of foreign currency, while the country was having economic problems, helped to decrease foreign debt and unemployment (Çimat & Bahar, 2003). The new tourism policy, containing rapid development of infrastructure and incentives in the economy and the tourism industry after the 1990s has led to a rapid rise in tourism revenues. This trend continues in the 2000s. Numerically in the year of 2012 the share of the travel and tourism industry of global GDP was USD 2.05 trillion, which is 2.9%. For Turkey, The industry's contribution to total GDP was around 4%, USD 32.3 billion. The travel and tourism sector has created 1.9 million jobs. So it is the second largest job source after the public sector. This sector provides 9% of Turkey's job opportunities. (Investment Support and Promotion Agency of Turkey, 2013, 3-4). In the same year Turkey occupied the sixth first position in the world by the number of international tourist arrivals and the eleventh first position by international tourism receipts(Turkish Hotelier Federation, 2013), this , high arrivals number position and lower receipt position, could be a result, between many factors, of low price policy in tourism sector. Given the importance of tourism to economies, governments and researchers as well as tourism business are interested in the factors that determine tourist flows to a country and the reaction of tourism demand to these factors. Such knowledge is useful for making accurate predictions of tourism demand, the planning of infrastructure and facilities for tourists, and the development of effective tourism policies. This induced researchers to model the demand for tourism using many approaches, quantitative and qualitative.

In this context, the importance of tourism sector, and the importance of modeling the demand for tourism, especially for Turkey, and as Turkey is placed in unstable area, we try to construct a tourism demand function, which takes into account the macroeconomic factors and some special events. The model

constructed in this paper belongs to causal econometric approaches, and based on the classical economic theory, which concentrates on income and price as determinants of the demand for international tourism. As many empirical studies have found that the behavior of tourists may be affected by non-economic factors, we try to assess the impacts of special events of Golf War 1991, Abdullah Öcalan arresting 1999, 9-11, Iraqi invasion 2003, the outbreak of SARS virus 2006, and financial crisis 2008-2009 on the number of international tourist arrivals to Turkey. Numerous studies tried to estimate tourism demand function in Turkey, but, to our knowledge the application of ARDL approach for a set of Turkish data is new. In this paper we are trying to evaluate the relationship between inbound tourism in Turkey and related macroeconomic variables and some special events, for the major tourism markets, with the purpose of providing the interested agents with better understanding of the demand for tourism, in order to make better decisions relating to tourism activities. So the added value of this article is the estimation of international tourism demand for Turkey, for its basic markets, using new approach and the newest data. This paper is organized as follows: the next section reviews empirical literature on tourism demand. Section 3 discusses the empirical methodology employed in this study. The empirical results are presented and discussed in section 4. The last section is conclusions.

2. Literature Review

According to Song et al. (2009, P. 31) the rapid growth of tourism industry globally attracted the interest of researchers since the end of the World War II. And they tried to model the tourism demand to analyze the effects of different factors, and predict the future behavior of the demand. After that many advances took place, theoretically and methodologically. Until the early 1990s, the tourism demand models were just static, which suffered from many problems. The dynamic models, with their merits for long-run and short-run demand elasticity analysis, appeared in med of 1990s. We will concentrate on recent studies that used ARDL and the studies about inbound tourism in Turkey. Wang (2009) used the auto-regression distributed lag model ARDL and Bounds test for studying tourism demand function for Taiwan. Using data for the period of 1996(Q1)- 2006(Q2), he studied the role of macroeconomic variables, such as foreign exchange rates, incomes, relative prices, and transportation costs as determinants of the demand for inbound tourism, in addition to the impacts of some special events. He found long run cointegration relationships between all variables. The short run elasticities of income and foreign exchange rates were both significant and more than /1/, but the coefficient of the price was not significant. The effects of special events also were significant. But his study was just for Japan market and it did not estimate the long run equation. Chaitip and Chaiboonsri (2009) also used ARDL approach, and data from 1997(Q1)-2005(Q2) to study the short-run and long-run relationships between international tourist arrivals in Thailand and GDP, the price of goods and services, transportation costs, temperature of Thailand , and both the exchange rate and exchange rate risk. The results indicated that the (GDP) of Thailand's major tourist source markets has a positive impact on international visitor arrivals while transportation cost and both exchange rate and exchange rate risk have a negative impact on international visitor arrivals to Thailand, in long run and short run. And the result differed too much between the markets.

Lee "a"(2011) estimated tourism demand elasticities for Hong Kong, from four major markets, using (ARDL) approach to cointegration. The results showed that the permanent income is the most important variable for all markets, but with some differences between countries with the long-run elasticity. The second important variable was price. Ziramba and Moyo (2013) sought to identify the determinants of outbound tourism demand (outbound tourist outflows) in South Africa. They also employed (ARDL) approach to explain the long run and short run relationships. The results indicated that in the long run the real domestic income and the relative prices are significant factors. In the short run, only the relative prices have an impact on outbound tourism demand from South Africa. For turkey the first article about the demand for inbound tourism was Uysal and Crompton (1984). This article studied the demand for tourism in Turkey using factors such as: per capita income, relative prices, relative exchange rate, promotional expenditure, and special events (political unrest) as determinants, for the period 1960-1980.Analysiswas by least squares multiple regressions. Income, price and exchange rate were found to be important factors but the impact of promotional expenditure was minimal. Akls (1998) examined the relationship between tourism demand for Turkey and national income and relative prices. In determining the relationship, he used a double-logarithmic functional form, for the period of1980-1993, for 18 markets. In general, the results indicated a positive

relationship for national income, and a negative relationship for relative prices. But the models in the two previous studies were static without any test for stationary, as it was not common yet. And the special events used only for Germany and Cyprus in Uysal and Crompton (1984).

Karagoz and Saray (2010) studied the factors that control the inflow tourism based on a (static) panel gravity model for the period of 1992-2007, and found that there are positive relationships between the demand for tourism and GDP per capita and population. In this study there is no role for the prices or the special events. Balli et al. (2013) used the same model, (static and dynamic) panel gravity model framework, after adding, special events, price, and trade variables. The application was for 81 source countries for a period between 1995 and 2010. The results indicated that the coefficients of GDP, population, CPI, and Trade volume was significant. In this paper we used ARDL approach to co-integration as used by Wang, (2009), Chitip and Chaiboonsri (2009), Lee"a"(2011), Ziramba and Moyo(2013) and made bound test, for Turkey time series data of inflow tourism from its basic origin developed countries, for the period 1986-2012, with special interest in political and economic negative events. So we used an approach that is not used for Turkey yet, and for different time period, to answer the question of the role of macroeconomic variables and special events in the demand of tourism in turkey.

3. Data Description and Modelling Approach

Data description: We used data for our variables from World Bank[4], except for the number of tourist arrivals we got data from Turkish Ministry of Tourism and Culture[5]. We selected five developed country for our study (Germany, Netherlands, France, UK, and US) as they constitute a big share of sources of tourists to Turkey and because of the availability of data. For the dummy variables, which take the 0 value except in some specific years, we concentrated on Golf War 1991 and the variable takes the value of 1 in 1991, arresting of Abdullah Öcalan 1999 and the variable takes the value of 1 in 1999, 9-11 attacks in New York and the variable takes the value of 1 in 2001, the Iraq invasion and the variable takes the value of 1 in 2003, the outbreak of SARS and the variable takes the value of 1 in 2006, and the financial crisis and the variable takes the value of 1 in 2008-2009.

Modelling approach: According to classical economic theory demand (A) is function for Income (Y) and Prices (P): A = f (Y, P). And the same applies to tourism demand with adding additional variables, for our purpose the tourism demand function takes the form:

$$A = a + \beta_0 Y + \beta_1 P + \beta_2 REER + \beta_3 D1 + \beta_4 D2 + \beta_5 D3 + \beta_6 D4 + \beta_7 D5 + \beta_8 D6 + \varepsilon \quad (1)$$

Where:
A: number of tourist arrival to Turkey
Y: per capita income in the origin country (expected sign positive)
P: price level in Turkey (expected sign negative)
REER: real effective exchange rate in origin country (expected sign negative)
D1: dummy variable represents golf war 1991 (expected sign negative)
D2: dummy variable represents arresting Abdullah Öcalan and the followed political instability 1999 (expected sign negative)
D3: dummy variable represents 9-11-2001 (expected sign negative)
D4: dummy variable represents Iraq invasion 2003(expected sign negative)
D5: dummy variable represents SARS outbreak 2006 (expected sign negative)
D6: dummy variable represents financial crisis 2008-2009(expected sign negative)
ε : Random error term

Generally two kind of functional forms are used for demand for tourism, linear equation or power equation. The power function is preferred because of: First, it implies that the marginal effects of each independent variable on the dependent variable are not constant, but depend on the value of the variable and all other

[4]-http://data.worldbank.org/indicator
[5]-http://www.kultur.gov.tr/EN,36568/number-of-arriving-departing-visitors-foreigners-and-ci-.html

variables in the demand function. Second the ability of transformation into a linear relationship using logarithms that makes the estimation relatively easy (known as the double-log or log-log model). Third the estimated coefficients are estimates of demand elasticities (Song et al., 2009, P. 9-10, 37). So we used double-log functional form as the following:

$$\ln A = a + \beta_1 \ln Y + \beta_2 \ln P + \beta_3 \ln REER + \beta_4 D1 + \beta_5 D2 + \beta_6 D3 + \beta_7 D4 + \beta_8 D5 + \beta_9 D6 + \varepsilon \quad (2)$$

As an estimation using OLS may give spurious regression, when the data series are not stationary, the Engle and Granger cointegration approach, could be a good solution for this issue. Using the Error Correction Model (ECM) to estimate tourism demand, gives us many advantages. Among them the capability of the error correction approaches of capturing the long run and short run relationships, while the static Ordinary Least Squares (OLS) approach concentrates on the long-run equilibrium relationship (Lee, 2011). According to Wang (2009) , when there are series I(1) and I(0) in the model, the using of traditional cointegration methods, such as the two-stage method, maximum likelihood approximation cointegration, may produce biased results. So he advises using ARDL approach developed by Pesaran et al. (2001) The advantage of using the ARDL model is its ability to detect long-run relationships and solve the small-sample problem whether the series are just first order-integrated, I(1), purely zero order-integrated, I(0), or a mixture of both (Lee, 2011; Chaitip and Chaiboonsrl , 2009). For our purpose ARDL takes the following form:

$$\Delta \ln A_t = a + \lambda_1 \ln A_{t-1} + \lambda_2 \ln Y_{t-1} + \lambda_3 \ln P_{t-1} + \lambda_4 \ln REER_{t-1} + \sum_{i=1}^{n1} \beta_0 \Delta \ln A_{t-i} + \sum_{i=0}^{n2} \beta_1 \Delta \ln Y_{t-i} + \sum_{i=0}^{n3} \beta_2 \Delta \ln P_{t-i} + \sum_{i=0}^{n4} \beta_3 \Delta \ln REER_{t-i} + \beta_4 D1 + \beta_5 D2 + \beta_6 D3 + \beta_7 D4 + \beta_8 D5 + \beta_8 D6 + \varepsilon_t \quad (3)$$

Where : Δ first differences, β_i short run relationships, and λ_i long run relationships.

A general error correction representation of equation (3) is:

$$\Delta \ln A_t = a + \gamma EC_{t-1} + \sum_{i=1}^{n1} \beta_0 \Delta \ln A_{t-i} + \sum_{i=0}^{n2} \beta_1 \Delta \ln Y_{t-i} + \sum_{i=0}^{n3} \beta_2 \Delta \ln P_{t-i} + \sum_{i=0}^{n4} \beta_3 \Delta \ln REER_{t-i} + \beta_4 D1 + \beta_5 D2 + \beta_6 D3 + \beta_7 D4 + \beta_8 D5 + \beta_8 D6 + \varphi_t \quad (4)$$

Where γ is the coefficient of error correction speed, and is expected to be negative. This coefficient indicates to the speed at which the current differences in tourist arrivals respond to the disequilibrium in the previous period.

Relating to the dependent variable, tourism demand is generally measured by the number of tourists visit the destination country, or by tourists expenditure in the destination country, or by the number of tourist nights spent in the destination (Song et al., 2009, p. 2-3). Demand theory suggests that the best demand variable should be able to measure the quantity of the product demand. So measuring demand in real money terms is better. But often the data is not available. In general data on the tourist arrivals is better alternative as they are more reliable but they are less responsive to the independent variables (Qu and Or, 2006). The majority of studies used tourist arrivals (Munoz, 2007). So we used per capita number of tourist arrivals because of the availability of reliable data for number of arrivals and to take the population of source countries into account (A= number of tourist arrivals from a country in a specific year/population number for the same country in the same year). Commonly the selection of independent variables has often been based on the data availability and the specialties of the study. Also there are many factors prevents us from including all independent variables in the model, such as degree of freedom and multicollinearity (Zhang et al., 2009). Considering the above factors, we chose three economic variables, income (real per capita GDP) in origin country, Price (CPI) in Turkey, and real effective exchange rate (REER) for origin country, and special events. Income is the most important factor. It affects the ability to pay for travel. Results from empirical studies showed that income is an important variable; it is considered to be a key element in the demand for tourism

function (Hamadeh and Khoueiri, 2012; Dwyer and Forsyth, 2006). We used real per capita GDP to account for this variable.

Relating to price, commonly the consumer price index (CPI) in a destination country is considered the proxy for the cost of tourism. Prices are also a key element in most of the studies that were included in the typical single equation formula. However, it worth noting that relative prices are difficult to determine, and in most studies they were accounted for in indirect ways. The most commonly used reference point for prices was the consumer price index (Hamadeh and Khoueiri, 2012). We used the CPI to represent the price level in Turkey. Exchange rates are often viewed as determinant factors of the tourism demand due to the fact that tourists are more likely to be aware of exchange rates than of living costs and prices of the destination country. Many authors included the exchange rates in their studies, and focused on its significance whether by including the exchange rates between the tourist origin and the individual destination, by tourist origin and an average rate of a basket of destinations, or by composite relative prices (Hamadeh and Khoueiri, 2012). There are other causes of separating exchange rates from relative prices. They are the availability of more reliable data for exchange rates, and the ability of traveler to get information about exchange rates more quickly and easily (Vog, 2008; Vogt and Wittayakorn, 1998). We used real effective exchange rates to account for this variable. In respect of special events, dummy variables are used to account for specific events. These events include political, economic, and natural events. When the traveler chooses the destinations, often he avoids sites of terrorism and seeks places with stable political and natural situations that ensure his safety (Wang, 2009). We expect the most important events that affect tourism demand, during the period 1986-2012, to be: Golf War 1991, the arresting of Kurdish leader Abdullah Öcalan, 9-11, Iraq invasion, SARS outbreak 2006, and financial crisis 2008-2009.

4. Results

To use ARDL approach to cointegration the variables must be stationary in the levels or first differences or mixed, or integrated I (0) or (1) or mixed from the two. We preceded ADF (Augmented Dickey–Fuller) and PP (Philips and Perron) tests for stationary to determine the level of integration. And the results for the five countries are labeled in table (1).As we can see from table (1 in the appendix) the whole variables are integrated between I (0) and I (1), so we can use ARDL. We estimated ARDL model, using general to specific way, by omitting insignificant ones. We chose two period lag for variables to keep enough freedom degree as we have small sample of observations. And we got results shown in table (1). We conducted the Breusch-Godfrey Serial Correlation LM test for the models and found that there is no serial correlation, as in Table (2) panel (a) in the appendix, and CUSUM test for structural stability and found stability, as in figure (1) panel (a) in the appendix. So we conducted the Wald test (table 3 in the appendix) to know whether the variables are cointegrated (or they have long run equilibrium relationships), and we compared the result (calculated F statistic) with the critical values reported in the table (iii) (Asymptotic critical value bounds for the F-statistic Testing for the existence of a level relationships) in Pesaran et al. (2001), and found that the variables are cointegrated, as the calculated values were more than Upper bound critical values. So we can use (OLS) approach to estimate long run relationships between the variables.

As we see in the table (2), we found that the income has expected positive sign, for all markets, and the coefficients are significant, except for USA, which means positive relationship. And its value was more than one (elastic) for France and UK, which refers to tourism to Turkey as luxury good. But it is less than one for Netherlands and Germany and US, may this be a result of the fact that there are so many Turkish migrants in Germany and Netherland, or a result of considering tourism necessary good for the three countries. For price we found unexpected, positive, signs for the coefficients, except for France. Their value were so low, which means inelasticity, and they were not significant for France and US, this may be a result of the fact that many tourists come as groups using tourism agencies which have a high ability of bargaining, and a considerable share of business tourism and relative visit specially for Germany. Relating to REER we found that the coefficients have expected signs, negative, and they were significant with values more than one (elasticity). Which means with higher levels of real effective exchange rates in the origin countries the demand for tourism to Turkey goes down. The highest value for this coefficient was for France, which may be resulted from the high level of substitution between France and Turkey as they have many similarities in this field, for example the two countries are Mediterranean. Considering the special events, D6 is omitted in ARDL model,

meaning no effect for financial crisis 2008-2009. For Golf War 1991 D1, their coefficients had expected negative sign and were significant for all origin countries, and its values were the highest between the dummy variables, meaning it was the most important event. This may be a result of the fact that Golf War was international event and these countries participated in this war. Considering Abdullah Öcalan arresting and the followed political instability 1999, D2, it had expected negative and significant coefficients for France , Germany and Netherlands, but it had no role for UK and US, and we expect this difference to be the result of migration relationships and geographic closeness. Relating to 9-11 (D3) and Iraq invasion (D4), they had negative and significant coefficients for the US only. We expect this to be a result of US being the more involved country in these events. Regarding to SARS outbreak 2006 (d5), we found insignificant negative coefficient only in the case of France. These results consist with Wang (2009) relating the effect of financial crisis and that the safety of tourists is the key to maintain inbound tourism, but the same is not true for health.

Table 1: ARDL estimation results

Country	France	Germany	Netherlands	U. Kingdom	U. States
C	-6.45505***	-5.43595**	13.01304*	-3.82551	-6.06228
A(-1)	-0.66414*	-0.73393*	-0.64045*	-0.61632*	-0.59163*
Y(-1)	0.123785	0.053472	-0.00581	0.670929**	0.485182
P(-1)	0.052878**	0.141652*	0.146447*	0.049681	0.014543
REER(-1)	0.457804	0.430734	-3.32965	-1.23472*	-0.62503
D(A(-1)					
D(Y(-1))	0.824908**	1.139612*	0.654317***		
D(P(-1))	-0.74258*		-0.67909*		
D(REER(-1))	-6.15806*	-2.79345*			
D1	-0.85461*	-0.40876*	-0.54113*	-0.77783*	-1.1151*
D2	-0.35385*	-0.58758*	-0.6732*		
D3					-0.54481*
D4					-0.44815*
D5	-0.23778**				

* : significant at 0.01, ** significant at 0.09, and *** significant at 0.10, D: difference

Using Ordinary Least Squares (OLS) we estimated the long run demand function, and we found the coefficients displayed in table (2).

The adjusted R-square for the five models were : 0.93, 0.97, 0.95, 0.95, and 0.88respectively which means high ability of the models to explain the dependent variable variances which are more than 90%, and for F-statistic (prob) were:0.00, 0.00 , 0.00, 0.00, and 0.00 which means good fitting for the models. We conducted the Breusch-Godfrey Serial Correlation LM test for the models and found that there is no serial correlation, as

in Table (2) panel (b) in the appendix, and CUSUM test for structural stability and found stability, except for Netherlands and UK as in figure (1) panel (b)in the appendix. We estimated general error correction model (ECM), and got the results shown in table (3). As the table (3) shows the error correction coefficients are significant and negative for all origin countries, and their values are less than one, as expected, which indicates to the long run causation between independent and dependent variables. The results indicate that the adjusting of disequilibrium is the fastest in France 55% yearly, followed by US 49% yearly, Netherlands 37% yearly, Germany 35% yearly, and UK 33% yearly.

Table 2: long run coefficients

Country	C	Y	P	REER	D1	D2	D3	D4	D5
France	10.41597***	1.703951*	-0.05767	-7.06946*	-1.05902*	-0.43508**			-0.03841
Germany	-4.96451***	0.591782*	0.16426*	-1.09178*	-0.27281***	-0.57071*			
Netherlands	-5.99824	0.794265***	0.225865*	-1.37069	-0.19946	-0.81949*			
U. Kingdom	-11.2424*	1.42449*	0.069104***	-1.67431*	-0.73324*				
U. States	-0.95399	0.029336	0.136014	-1.36793***	-0.94843*		-0.5077**	-0.74344*	

* : significant at 0.01, ** significant at 0.09, and *** significant at 0.10

For income, in short run, the coefficients have expected positive signs and they are significant for France and Germany, but with unexpected sign and insignificant for Netherlands. But there is no role for income for UK and US. For price the coefficients got expected sign for France and unexpected sign for Netherlands, with no role for price in the other countries. That can be explained by the same factors as in the long run. For REER the coefficients have expected signs in Germany and France but it is not significant in Germany. For special events they show results as in the long run model with fewer values. Comparing, in general, between the long run and short run models, we find that the coefficients of long run models are bigger than the short run ones. That means higher sensitivity of tourism to its determinants in long run. This supports the idea that tourism is long run activity. This finding is compatible with what reported by Song et al. (2009) that the sensitivity of income and own-price in the long run are greater than their short-run counterparts. These results consist with demand theory. Due to information asymmetry and relatively inflexible budget allocations, it takes time before income changes affect tourism demand.

The adjusted R-square for the five models were : 0.86, 0.53, 0.40, 0.38, and 0.70respectively which means the different levels of the ability of models to explain the variances of dependent variable, and for F-statistic (prob) were:0.00, 0.00, 0.00, 0.00, and 0.00 which means good fitting for the models. We conducted the

Breusch-Godfrey Serial Correlation LM test for the models and found that there is no serial correlation, as in Table (1) panel (c) in the appendix, and CUSUM test for structural stability and found stability, except for UK as in figure (1) panel (c) in the appendix. To understand the behavior of tourism demand with shocks and innovations we estimated VAR model, and conducted impulse response and variance decomposition. Impulse response functions show the effects of shocks on the adjustment path of the variables. Variance decomposition is another way which considers the contribution of each type of shock to the forecast error variance (Hill et al., 2011).

Table 3: error correction model estimation

Country	C	ECT	D(Y(-1))	D(P(-1))	D(REER(-1))	D1	D2	D3	D4	D5
France	0.094689	-0.55035*	1.312052**	-0.13316	-6.13098*	-0.91772*	-0.42692*			-0.16373
Germany	0.071341***	-0.35919**	0.904838***		-2.12592	-0.34694***	-0.48863*			
Netherlands	0.074711	-0.37757***	-0.05702	0.243997		-0.42047	-0.58574**			
U. Kingdom	0.124361*	-0.33688**				-0.59291*				
U. States	0.148616*	-0.49199*				-0.97869*		-0.66281*	-0.23667	

* : significant at 0.01, ** significant at 0.09, and *** significant at 0.10, ECT: error correction coefficient

If we compared with the results got by Munoz (2007), Vanegas Sr (2009), Qu and Or (2006), Dougan (2007), Wang (2009), Chitip and Chaiboonsri (2009), Lee "a" (2011) and Ziramba and Moyo(2013) we would found that our models are less responsive to the determinants. We expect that this difference resulted from using different sample, different time period, and differences in variables.

In the figure (2), there is the impulse response. For France, in panel (a), the demand for tourism responds positively to one SD in prices and negatively to one SD in income and REER. The effect generally starts from the first year and reaches its top in the second year and goes down after that. The most powerful reaction is to income. For Germany in panel (b) the demand for tourism responds positively to one SD in prices and income and negatively to one SD in REER in the first three years and positively after that. The effect generally starts from the first year and reaches some of its tops in the second year and goes down and up after that. The most powerful response is to income. Considering Netherlands in panel (c) the demand for tourism responds positively to one SD in prices and negatively to one SD in income and REER. The response starts from the first

year and goes up. The most powerful response is to income and price. In panel (d), for UK, the demand for tourism responds positively to one SD in income and negatively to one SD in price and REER. The response starts from the first year and goes up for income, reaches a top in the third year and goes down for price, reaches a top in the fourth year and goes down for REER. The most powerful response is to income and REER. In panel (e), for US, the demand for tourism responds positively to one SD in income and price and REER, but becomes negative in the seventh year for price. The response starts from the first year and goes up for income, reaches a top in the third year for price and REER. The most powerful response is to income. This means that the most important factor in the adjustment path of the demand for tourism after the demand himself is the income.

In table (4) in the appendix there is variance decomposition. In panel (a) for France, we find that after the first year the demand explains 66.3% of its variance and this share goes down after that. Income explains 21.3%and this share goes down after that. Price explains 10.9%and this share goes up to the third year and goes down after that. REER explains 1.3%and this share goes up to the third year and goes down after that. In panel (b) for Germany, we find that after the first year the demand explains 70.2% of its variance and this share goes down after that. Income explains 13.2%and this share goes up after that. Price explains 3.6%and this share goes up after that. REER explains 12.9%and this share goes up to the fourth year and goes down after that. In panel (c) for Netherlands, after the first year the demand explains 94.4% of its variance and this share goes down after that. Income explains 4.2%and this share goes down after that. Price explains 0.03%and this share goes up after that. REER explains 1.1%and this share goes up to the third year and goes down after that. In panel (d) for UK, after the first year the demand explains 63.3% of its variance and this share goes down after that. Income explains 23.6% and this share goes up after that. Price explains 4.1% and this share goes up to the third year and goes down after that. REER explains 8.9% and this share goes up to the fourth year and goes down after that. In panel (e) for US, after the first year the demand explains 73.5% of its variance and this share goes after that. Income explains 26.2% and this share goes up after that. Price explains 0.09% and this share goes up to the third year and goes down after that. REER explains 0.13% and this share goes up to the third year and goes down after that. This means that the most important variable in explaining the demand variance after the demand himself and the income. We can conclude from these two tests the two important factors in demand for tourism are the tourists' experiences and their income and there is a weak role for prices.

5. Conclusion

In this article we studied the determinants of inbound tourism demand in Turkey over the annual period 1986-2012. We conducted ADF (Augmented Dickey–Fuller) and PP(Philips and Perron) tests for stationary to determine the level of integration. We used autoregressive distributed lag (ARDL) approach to test for cointegration and the (bounds test)developed by Pesaran et al. (2001). We estimated long run model using OLS and estimated general error correction model. The results indicate that the most significant factor determining inbound tourist flows is the real per capita income (with long run elasticities between 1.7 and 0.02 and short run elasticities between 1.31 0 and -0.05) and real effective exchange (with long run elasticities between -1.09 and -7.06 and short run elasticities between 0 and -6.13).We found weak effects for price. For the special events the political events played a strong role differed from country to country. The most important one was D1 which affected the whole markets, as they participated in the gulf war 1991. Considering the Abdullah Öcalan arresting and the followed political instability 1999, D2,it affected France, Germany and Netherlands, because in these countries there are a large number of migrants from Turkey. Also Iraq invasion (D4) had negative effect in US only because only US government directly took a role in the war. There was no role and financial crisis. In impulse response and variance decomposition we found that the most important factors are demand himself and income. This means that the factors which should be observed by Turkish planers and tourism business accurately are the quality of tourism services and real per capita income in the origin country and real effective exchange rate in the origin country, and domestic and regional political events. Also this suggests that the policy of low prices may not be effective in tourism marketing for Turkey. As there were so many differences between countries we expect that it will be better, when there is enough data, to study the demand behavior by dividing the demand for tourism by the motivation of tourists.

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Appendix:

Table 1: stationary test results

Country	variable	ADF- test			PP-test		
		With intercept	With intercept and trend	None	With intercept	With intercept and trend	None
France	A	-0.715590	-6.278068*	-	-1.367576	-4.849181*	-3.615928*
	D(A)	-2.584928			-15.54012*		
	Y	-1.831482	-2.120748	2.328954	-1.831482	-2.370065	2.328954
	D(Y)	-4.411428*	-4.358431*	-4.036275*	-4.408349*	-4.357768*	-4.028049*
	P	-3.549921**	-1.288063	-	-3.045705**	0.755891	-0.262007
	D(P)		-4.487086**			-2.884130	-0.762955
	REER	-1.935077	-2.329934	-0.758634	-1.650380	-2.115334	-0.758634
	D(REER)	-4.340437*	-4.242177**	-4.317051*	-4.340437*	-4.242177**	-4.317051*
Germany	A	-1.940494	-3.407466***	-2.641025**	-2.476005	-3.373268***	-4.819685
	D(A)	-5.492878*			-6.570141*		-4.800091*
	Y	-2.119240	-4.544029*	2.343695	-2.075295	-2.446097	2.205981
	D(Y)	-2.032932		-	-4.428300*	-4.360035**	-4.062331*
	REER	-1.600117	-4.176335**	-0.509196	-1.399830	-1.984801	-0.474801
	D(REER)	-		-4.063863*	-4.045843**	-4.021008**	-4.063863*
Netherlands	A	-1.925768	-2.373433	-2.971742*	-2.134885	-2.373433	-3.672768*
	D(A)	-5.936830*	-6.290619*		-5.936830*	-6.376564*	
	Y	-1.703255	-4.389045**	2.748028	-1.699267	-2.178113	2.761288
	D(Y)	-4.511602*		-1.597859	-4.497940*	-4.473456*	-3.917919*
	REER	-2.174502	-2.256120	-0.165809	-2.256120	-2.256120	-0.166375
	D(REER)	-4.461881*	-4.372880*	-4.552313*	-4.471482*	-4.383996*	-4.560483*
United Kingdom	A	-1.843009	-4.964620*	-2.505306**	-1.819642	-	-
	D(A)	-4.461207**			-4.461315*		
	Y	-2.492838	-2.786766	2.765358	-2.367172	-2.507057	2.765358
	D(Y)	-3.943616*	-3.996278**	-3.519225*	3.890655*	-3.974250**	-3.466020*
	REER	-2.608651	-2.643445	0.308669	-2.084058	-2.003365	0.308669
	D(REER)	-3.692554**	-3.650557**	-3.754966*	-3.673628	-3.632987**	-3.734387*
United States	A	-1.661321	-3.186635	-1.090822	-2.174016	-	-
	D(A)	-5.300515*	-5.175026*	-5.225126*	-6.768301*		
	Y	-1.612892	-2.114096	2.347628	-	-1.194554	7.284715
	D(Y)	-	-3.180256	-1.287845		-	-1.126809
	REER	-	-2.658774	-1.131851	-2.126943	-2.054635	-1.131851
	D(REER)		-4.252699**	-4.454057*	-4.355403*	-4.249582**	-4.490610*

* : significant at 0.01, ** significant at 0.09, and *** significant at 0.10
Source: E views program results.

Table 2: Breusch-Godfrey Serial Correlation LM Test

Panel (a)Breusch-Godfrey Serial Correlation LM Test for ARDL model

France	F-statistic	1.572126	F(2,12)	Prob. 0.2475
	Obs*R-squared	5.190503	Chi-Square(2)	Prob. 0.0746
Germany	F-statistic	0.671897	F(2,14)	Prob. 0.5265
	Obs*R-squared	2.189476	Chi-Square(2)	Prob. 0.3346
Netherlands	F-statistic	0.412394	F(2,14)	Prob. 0.6698
	Obs*R-squared	1.390893	Chi-Square(2)	Prob. 0.4989
UK	F-statistic	0.611071	F(2,18)	Prob. 0.5537
	Obs*R-squared	1.653079	Chi-Square(2)	Prob. 0.4376
US	F-statistic	0.377952	F(2,16)	Prob. 0.6912
	Obs*R-squared	1.172931	Chi-Square(2)	Prob. 0.5563

Panel (b) Breusch-Godfrey Serial Correlation LM Test for long run model

France	F-statistic	0.806211	F(2,18)	Prob. 0.4620
	Obs*R-squared	2.219787	Chi-Square(2)	Prob. 0.3296
Germany	F-statistic	2.937738	F(2,19)	Prob. 0.0773
	Obs*R-squared	6.377280	Chi-Square(2)	Prob. 0.0612
Netherlands	F-statistic	7.979914	F(2,19)	Prob. 0.0730
	Obs*R-squared	12.32601	Chi-Square(2)	Prob. 0.0561
UK	F-statistic	1.422590	F(2,20)	Prob. 0.2645
	Obs*R-squared	3.362628	Chi-Square(2)	Prob. 0.1861
US	F-statistic	0.917675	F(2,18)	Prob. 0.4173
	Obs*R-squared	2.498289	Chi-Square(2)	Prob. 0.2868

Panel (c) Breusch-Godfrey Serial Correlation LM Test for error correction model

France	F-statistic	0.230195	F(2,18)	Prob. 0.7971
	Obs*R-squared	0.744467	Chi-Square(2)	Prob. 0.6892
Germany	F-statistic	1.360678	F(2,17)	Prob. 0.2830
	Obs*R-squared	3.449758	Chi-Square(2)	Prob. 0.1782
Netherlands	F-statistic	7.979914	F(2,17)	Prob. 0.2447
	Obs*R-squared	12.32601	Chi-Square(2)	Prob. 0.1217
UK	F-statistic	2.286380	F(2,21)	Prob. 0.1264
	Obs*R-squared	4.649156	Chi-Square(2)	Prob. 0.0978
US	F-statistic	3.108729	F(2,19)	Prob. 0.0679
	Obs*R-squared	6.410396	Chi-Square(2)	Prob. 0.0626

Table 3: Wald Test for ARDL Model

Country	Test Statistic	Value	df	Probability
France	F-statistic	17.91730	(4, 14)	0.0000
	Chi-square	71.66921	4	0.0000
Germany	F-statistic	15.33079	(4, 16)	0.0000
	Chi-square	61.32317	4	0.0000
Netherland	F-statistic	16.25904	(4, 16)	0.0000
	Chi-square	65.03617	4	0.0000
UK	F-statistic	8.885829	(4, 20)	0.0003
	Chi-square	35.54331	4	0.0000
US	F-statistic	21.91842	(4, 18)	0.0003
	Chi-square	87.67366	4	0.0000

Table 4: variance decomposition
Panel (a) France

Variance Decomposition of A: Period	S.E.	A	Y	P	REER
1	0.121017	100.0000	0.000000	0.000000	0.000000
2	0.187076	66.34837	21.36475	10.95392	1.332972
3	0.206080	66.32991	19.70370	12.35239	1.614003
4	0.221737	70.67175	17.24762	10.67705	1.403575
5	0.240013	74.41604	15.07543	9.285655	1.222868
6	0.260823	75.95442	14.28093	8.638535	1.126116
7	0.279066	77.24843	13.32955	8.351323	1.070694
8	0.294370	78.46986	12.28555	8.218472	1.026118
9	0.308801	79.35973	11.39206	8.256920	0.991294
10	0.323301	79.77861	10.69336	8.553023	0.975009

Panel (b) Germany

Variance Decomposition of A: Period	S.E.	A	Y	P	REER
1	0.115610	100.0000	0.000000	0.000000	0.000000
2	0.178369	70.21139	13.21827	3.611993	12.95834
3	0.190778	66.22858	14.44218	5.894030	13.43521
4	0.196139	63.21715	16.45559	7.304486	13.02278
5	0.212779	54.19084	24.38753	10.33992	11.08171
6	0.232573	45.71583	31.11959	13.73082	9.433762
7	0.252397	40.45888	34.03012	15.89795	9.613048
8	0.276140	35.25552	37.40656	17.89725	9.440670
9	0.303408	30.96686	40.46906	19.83927	8.724815
10	0.331470	28.49956	41.80430	21.12351	8.572627

Panel (c) Netherlands

Variance Decomposition of A: Period	S.E.	A	Y	P	REER
1	0.276870	100.0000	0.000000	0.000000	0.000000
2	0.346290	94.49926	4.274176	0.030614	1.195946
3	0.393995	92.47400	3.332882	2.631253	1.561867
4	0.432438	93.61232	2.768140	2.282287	1.337255
5	0.479094	94.31023	2.415193	2.148209	1.126370
6	0.520678	93.66153	2.253894	3.101210	0.983368
7	0.550228	92.51732	2.236480	4.329675	0.916525
8	0.577391	90.88927	2.246483	6.015890	0.848358
9	0.605046	88.40475	2.393970	8.399195	0.802086
10	0.632845	85.40237	2.547439	11.27656	0.773635

Panel (d) UK

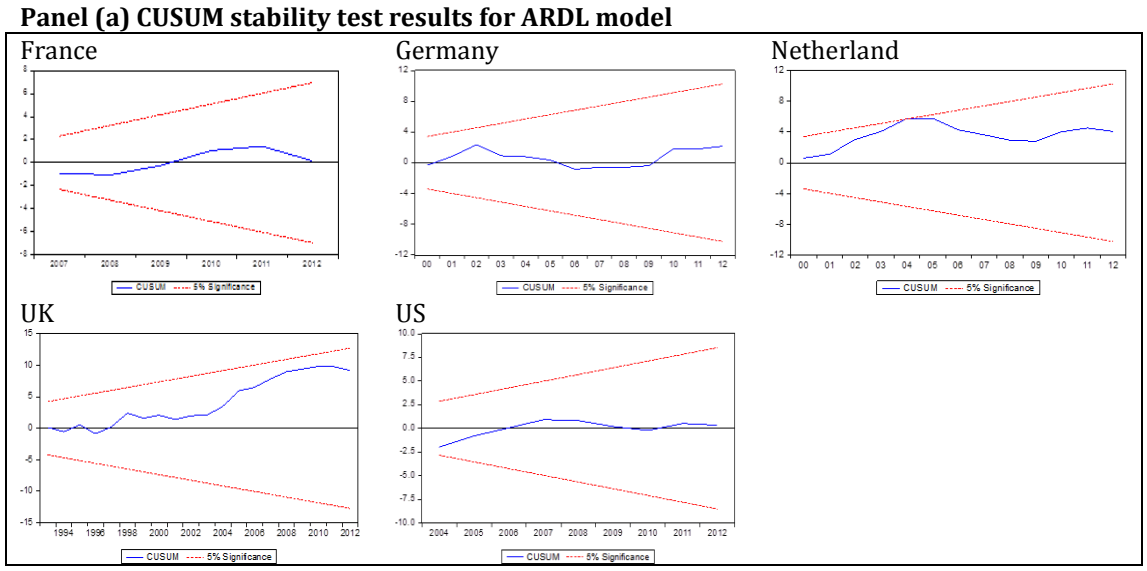
Variance Decomposition of A: Period	S.E.	A	Y	P	REER
1	0.076180	100.0000	0.000000	0.000000	0.000000
2	0.095864	63.34105	23.64562	4.110056	8.903274
3	0.140756	36.57898	25.48305	10.78797	27.15000
4	0.181148	31.37030	27.54937	9.765808	31.31452
5	0.216362	32.25386	33.93480	8.412975	25.39836
6	0.246005	31.78001	39.07665	7.845377	21.29797
7	0.275567	31.49898	42.74547	7.126421	18.62912
8	0.301397	31.58160	45.23401	6.499276	16.68512
9	0.321553	31.73733	46.71225	6.001448	15.54897
10	0.340353	32.36552	47.36949	5.492739	14.77225

Panel (e) US

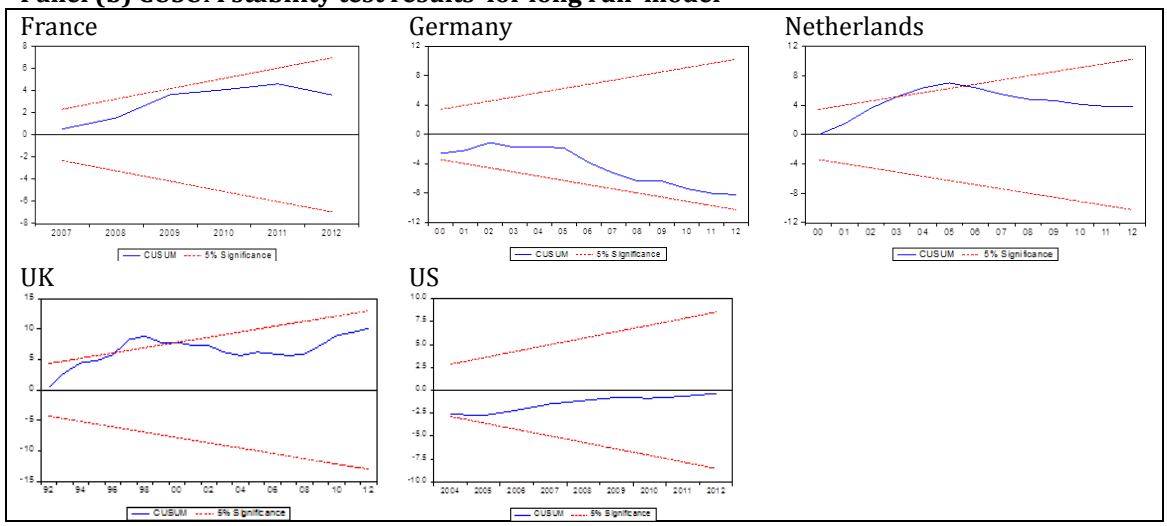
Variance Decomposition of A: Period	S.E.	A	Y	P	REER
1	0.131648	100.0000	0.000000	0.000000	0.000000
2	0.185029	73.53580	26.23748	0.090414	0.136307
3	0.236774	60.83338	37.41024	0.683190	1.073184
4	0.270611	52.18976	46.38263	0.586514	0.841094
5	0.300957	44.42362	54.41296	0.483378	0.680042
6	0.329858	39.87361	58.99327	0.440736	0.692385
7	0.358250	35.68597	63.29830	0.376591	0.639142
8	0.388794	31.31924	67.68919	0.438620	0.552946
9	0.419703	27.84162	71.03120	0.631906	0.495273
10	0.449917	24.99734	73.55018	1.009478	0.443004

Figure 1: CUSUM stability test

Panel (a) CUSUM stability test results for ARDL model



Panel (b) CUSUM stability test results for long run model



Panel (c) CUSUM stability test results for error correction model

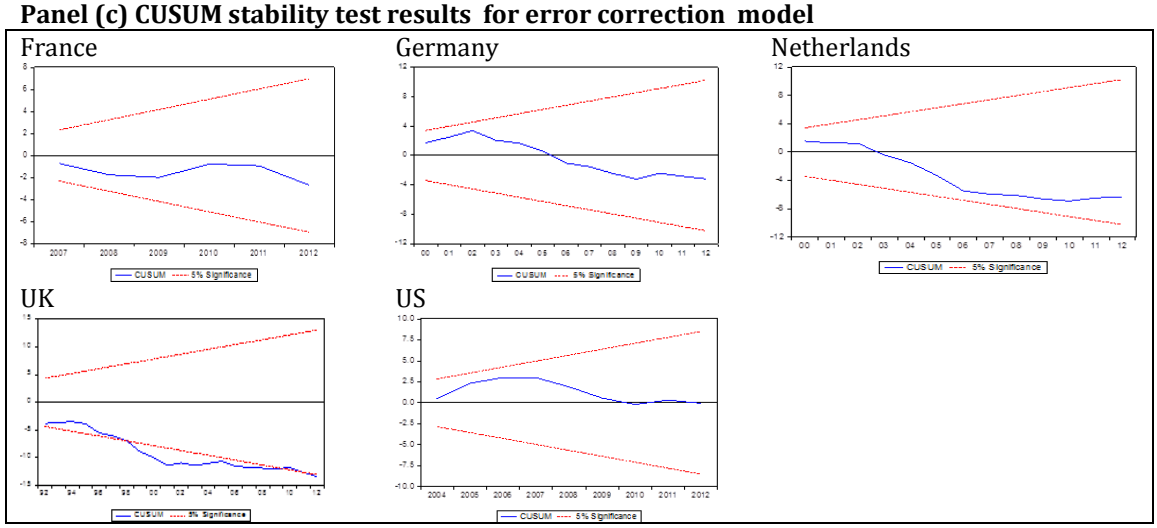
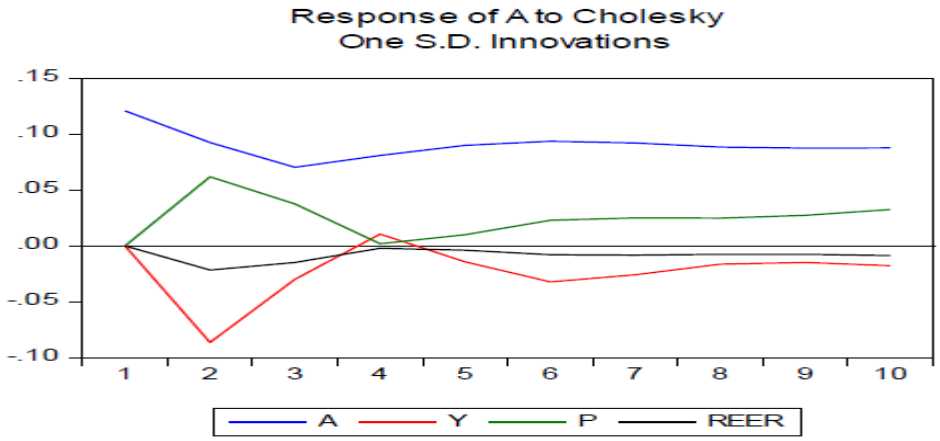
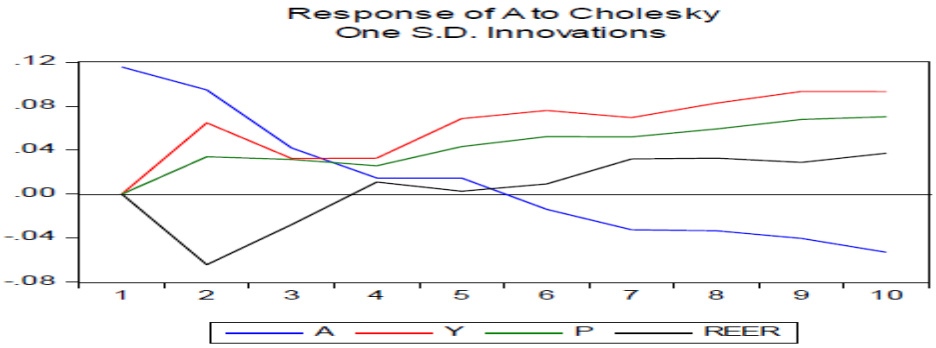


Figure 2: Impulse Response

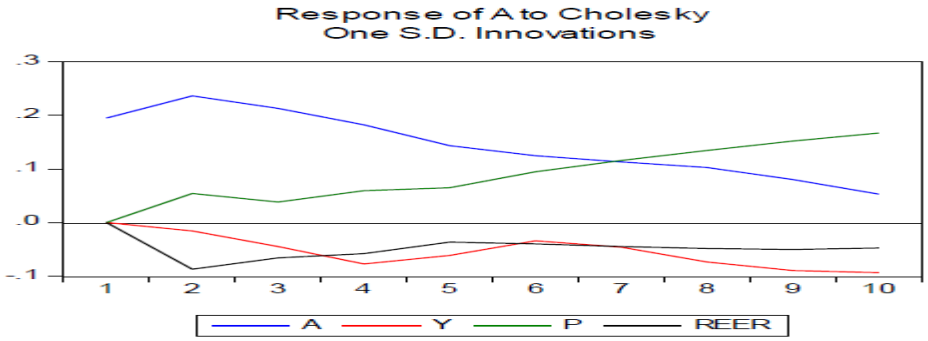
Panel (a) France



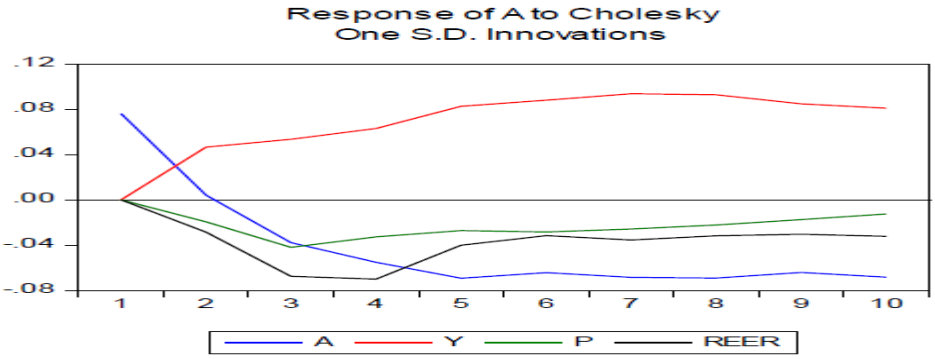
Panel (b) Germany



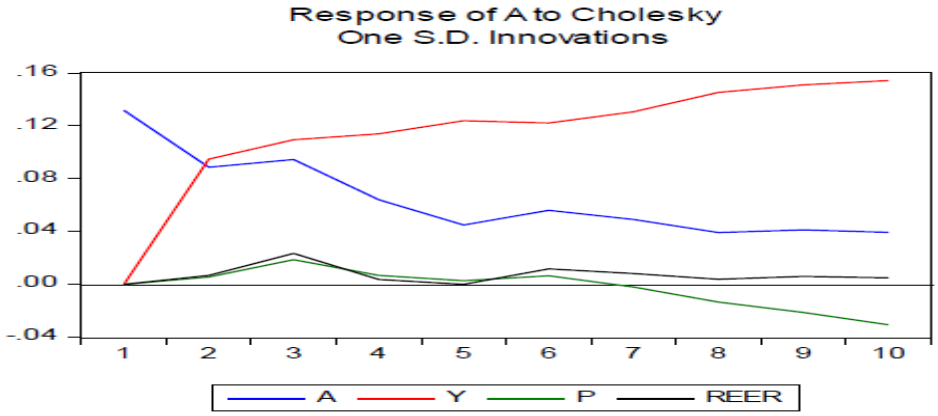
Panel (c) Netherlands



Panel (d) UK



Panel (e) US



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Trust or Not Trust: Understandıng the Effects of Allocentrısm & Idıocentrısm on Coworker Trust

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Abstract: The concept of coworker trust has gained importance for the last decade due to increased teamwork and collaboration within organizations. However, there is a need to study the concept of trust with emic perspective reflecting people or society's different values, norms and expectations. The aim of this study is to examine the role of allocentrism and idiocentrism, which represent individual level manifestations of collectivism and individualism on coworker trust and its dimension (i.e. affect- and cognition-based trust). Besides that, this study investigates whether willingness to work with somebody else is affected by cognitive- or affect-based trust. Data were gathered from German and Turkish samples and analyzed separately. Hypotheses were supported in a German sample such that allocentrism predicted both overall coworker trust and affect-based trust, while idiocentrism predicted cognition-based trust. In Turkish sample, allocentrism was found to be associated with overall coworker trust and cognition-based trust. Neither idiocentrism, nor allocentrism could predict affect-based trust in this sample. Remarkably, willingness to work with German coworkers was associated with cognitive-based trust. The results demonstrated the differential effects of idiocentrism and allocentrism on coworker trust and they are discussed together with its implications.

Keywords: *Allocentrism, idiocentrism, coworker trust, cognition, affect-based trust*

1. Introduction

Whether it is directed towards coworkers, subordinates, supervisors or organizations does not matter, trust is a critical variable in the development of any kind of relationship with the organizations. Trust reflecting "one's willingness to be vulnerable to an organization's or another person's actions (Mayer, Davis & Schoorman, 1995, p.712), is argued to lower transaction costs, facilitate inter-organizational relationships, enhance manager-subordinate relationships (Doney, Cannon & Mullen, 1998), teamwork (Lawler, 1992), increase job satisfaction, organizational commitment and job performance (Dirks & Ferrin, 2001) and boost organizational citizenship behaviors (Deluga, 1995). Realizing its importance, many studies have been conducted about the antecedents and consequences of trust. Although these studies contributed to the understanding and management of trust, the previous studies have been conducted mainly by and on Westerners holding individualistic tendencies (Chen, Chen & Meindl, 1998). Apart from reflecting the individualistic nature of Western societies, these studies focused more on the organizational context as an antecedent of trust (Lewicki, McAllister & Bies, 1998). So far, the society-specific factors like cultural attributes have generally been ignored. Although progress has been made to understand the emic nature of the trust, new studies are needed to understand how trust was shaped in different cultures and how people of different cultures approached the concept of trust.

Despite the extensive and well-developed literature on supervisory trust and organizational trust, relatively few studies have examined trust for coworkers/peers (e.g., Ferres, Connell & Travaglione, 2004; Lau & Liden, 2008). In addition to that, few studies addressed the relationship between coworker trust and cultural values. The prevalence of teamwork and interdependent tasks call for more collaboration and coordination among employees, which necessitate the existence of coworker trust (Groysberg & Abrahams, 2006). Besides that, team or group-based reward structures require employees to trust each other to do their best and work hard themselves (Lau & Liden, 2008). Considering the empirical findings and real life examples, we argue that effective execution of interdependent work and teamwork largely depends on interpersonal trust established between coworkers. Therefore, we believe that understanding coworker trust would contribute to the trust literature and help managers in promoting a trusting and collaborative work environment. As being subject to different pressures and influences, each society has different "collective programming", so called "culture". Like other spheres of our lives, culture influences trust formation by imposing norms and values that shape whom and when to trust. So far, some researchers have pointed out cross cultural differences in relationship orientation, which could affect the dyadic trust in organizational settings (e.g., Chua, Morris & Ingram, 2009). For example, establishing closer relations with supervisors and peers is regarded as a prerequisite to work

with them in collectivist cultures (Hampden-Turner & Trompenaars, 1994), which is characterized by interdependency in relations. By emphasizing uniqueness, independency, achievement, individualist cultures, on the other hand, seems to promote more calculative relationships and emphasize task achievement at the expense of relationships (Chen et al., 1998).

The aim of this study is in three fold. Firstly, this study aims to investigate the relationship among coworker trust, idiocentrism and allocentrism in two different countries, namely Turkey and Germany. Although Goregenli (1995) reports that Turkish culture is neither predominantly collectivist nor individualist in orientation, based on the results of cross cultural comparisons, many researchers (e.g., House, Hanges, Javidan, Dorfman, Gupta, 2004) still claimed that Turkish culture is relatively collectivist compared to Western cultures. In a number of studies, Germany, on the other hand, was found to be closer to North American cultures in terms of individualism. Seemingly different from each other with respect to collectivism-individualism dimension, we believe that Turkey and Germany could give important insights about how cultural factors shape the dyadic relations between coworkers. Secondly, the study aims to investigate whether Germans are willing to work with German and Turkish coworkers approximately 60 years after Turkish migration to Germany. The third aim of the study is to uncover whether this willingness or unwillingness is related to trust in coworkers.

Before introducing the theoretical section and conceptual background of the study, it is noteworthy to mention how we treated cultural variables, namely individualism and collectivism. Considering the possibility that within-society differences could be more than between-society differences, we did not treat individualism and collectivism as cultural difference variables, which differentiate one society from another. Instead, following the Singelis (1994) and Triandis et al. (1995) approach, we conceptualized these variables as two distinct psychological dimensions reflecting tendencies on the individual level. Like other researchers measuring collectivism and individualism at the individual level, we used "allocentrism and idiocentrism" terms, which correspond to the general cultural dimensions of "collectivism" and "individualism" respectively. Such an approach enabled us to test hypotheses separately for German and Turkish samples, without inferring any country differences. The following theoretical section is organized as follows: First, we will define the study variables, namely allocentrism, idiocentrism, coworker trust and its dimensions. Afterwards, we will discuss about the possible effects of allocentrism and collectivism on coworker trust and its dimensions (affect- and cognition-based trust) and formulate our hypotheses for two different societies known to have different orientations in regards to allocentrism and idiocentrism.

2. Literature Review

The Concept of Coworker Trust: As indicated before, this study focuses on coworker trust, which could be different from supervisor trust or organization trust in terms of power dynamics and degree of formalization. The relationship between employee and supervisor/ organization is characterized by power imbalance and largely formalized. The relationship between coworkers, on the other hand, is mostly based on informal communication and characterized with relatively less power imbalance (Tan & Lim, 2009). In this respect, focusing on coworker trust could contribute to the existing trust literature. However, we need to explain the concept of trust before talking about the hypothesis and possible contributions of this study. Despite the voluminous number of research, there is a level of agreement about the definition of trust in the literature. While some researchers focus on the behavioral side, others focus on the psychological components of trust. Researchers stressing the behavioral side generally view trust as "a rational choice behavior". For example, Deutsch (1962) defines trust as "actions that increase one's vulnerability to another" (p.276). Accordingly, the trust or must decide how much to cooperate with the trustee (i.e., the receiver of trust) and his/her level of trust is inferred from the level and frequency of cooperative behaviors shown (Lewicki, Tomlinson & Gillespie, 2006). Researchers focusing on the psychological side emphasize expectations, intentions, affect and dispositions (e.g., Mayer et al., 1995; Fukuyama, 1995). Fukuyama (1995) views trust as the expectation of regular, honest, and cooperative behavior based on commonly shared norms and values. Similarly, Rousseau, Sitkin, Burt and Camerer (1998) conceptualized trust as "*a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behavior of others*" (p.395). By combining both behavioral and psychological side, Doney et al. (1998) seems to provide a more

comprehensive definition which states that trust reflects "*willingness to rely on another party and to take action in circumstances where such action makes one vulnerable to the other party" (p.604).*

Having defined the umbrella term-trust, we could turn our attention to co-worker trust. Adapting Mayer et al. (1995, p.712) definition of trust, co-worker trust could be defined as "the willingness of a person to be vulnerable to the actions of fellow coworkers whose behavior and actions that people cannot control". Like Tan and Lim (2009), we used "coworkers" as a word for the members of an organization who frequently interact with each other and have equal or similar power. In this study, we examined the level of overall trust in a single coworker. However, acknowledging the fact that trust is a single, super ordinate factor with cognitive and affective dimensions (Lewicki et al., 2006), we also took into account these two dimensions in order to better understand the relationships among trust, idiocentrism and collectivism. Cognitive-based trust encompasses the beliefs and judgments about the other party's trustworthiness about fulfillments of prescribed responsibilities (Chen et al., 1998; Lewicki et al., 2006). Cognition-based trust relates to professionalism and provides partners with confidence that they will abide by their contract and treat each other equitably (Chen et al., 1998). Affect-based trust, on the other hand, represents the emotional bond between trustee and trustor that goes beyond business or professional relationships, and it is usually manifested as personal care and concern for others (Chen et al., 1998). The key difference between cognitive and affect-based trust is related to interests. While cognitive-based trust relies on one's desire to meet his/her self-interests and has calculative-side, affect-based trust relies on one's desire to be committed to the relationship and meet collective interests. Although cognitive- and affect-based trust seems to represent the distinct parts of trust, they are posited to reciprocally affect each other (Lewicki et al., 2006). Some researchers think that cognitive-based trust develops into affect-based trust because calculative and professional relationships may turn into more personalized and emotional relationships over time (Chen et al., 1998). In this study, we assume that allocentrism and idiocentrism differentially affects coworker trust and its dimensions (affect and cognition-based trust). Before providing the rationale for this assumption, however, we will discuss the meaning of the idiocentrism and allocentrism.

The Concept of Idiocentrism and Allocentrism: Culture, which is simply defined as "the *collective programming of the human mind that distinguishes the members of one human group from those of another* "(Hofstede, 1980, p.24) could manifest itself at national, organizational or individual levels. At the national level, culture is not a characteristic of a particular population segregated with national borders; rather it reflects the shared values and norms of a large number of people conditioned by similar background, education, and life experiences (Doney et al., 1998). While at the organizational level, culture reflects the values and norms of people in a particular organization, it reflects psychological tendencies shaping a person's values, norms, behaviors and attitudes at the individual level. Regardless of the conceptualization level, the predominant approach in recent decades has been studying "values" in the studies of culture.

After Hofstede's (1980) identification of an individualism and collectivism dimension, many researchers added new value-laden dimensions to explain and categorize the concept of culture. However, among these dimensions, "individualism and collectivism" dimension seems to remain the most prominent way of categorizing the culture. Individualism-collectivism refers to the relationship between the individual and the collectivity that prevails in a society (Hofstede, 1980). The specific defining attributes of individualism and collectivisms could be listed along 4 dimensions: self-definition, goal preference, adherence to norms or contracts, degree of relationship orientation (Triandis, 1995; Chen et al., 1998). The contrast between interdependent and independent selves is perhaps the most important distinction between collectivists and individualists. While collectivists define themselves with the group they belong, individualists define themselves with their unique characteristics and accomplishments; in other words their self concept is autonomous from groups. Apart from differences in self-definitions, goal preferences of collectivists and individualists also differ. While collectivists place greater priority to group goals, individualists prefer to pursue their personal goals rather than group goals in case of a discrepancy or conflict between two sets of goals (Schwartz, 1990). Given the importance of group identity, collectivists' behaviors are largely shaped by norms, duties and obligations of the groups. Individualists, on the other hand, behave based on their perceptions, experiences and interests shaped by the contracts they made (Triandis, 1995). The last noteworthy difference is about relationship orientation. Collectivists attach too much importance to relationships; therefore even if the costs of these relationships exceed the benefits, they cannot put an end to

these relationships. Individualists, on the other hand, approach relationships in a more calculative way such that if they cannot benefit from the relationship as they expected, they drop the relationship (Kim, Triandis, Kagitcibasi & Yoon, 1994).

The aforementioned differences between collectivists and individualists could affect the nature and quality of interpersonal interactions. By promoting 'I ' consciousness, individualism is argued to create loose interpersonal ties, higher tolerance to individual opinions, more individualized and competitive interactions. Collectivism, on the other hand, promotes "we" consciousness, greater loyalty to other people or institutions, stronger interpersonal ties, more interdependent and cooperative interactions (Hofstede, 1980; Triandis, 1995). There are considerable number of studies listing the characteristics of individualism and collectivism; however, there are still debates about its conceptualization. The issue of whether individualism and collectivism should be conceptualized as opposite ends of the continuum, as independent dimensions or encompassing multiple dimensions (Morris, Podolny & Sullivan, 2008) has not been resolved. Researchers treating them as independent dimensions assume that people could have collectivist and individualist tendencies at the same time. However, the researchers preferring multiple dimension approach distinguished different kinds of individualism and collectivism. For example, Triandis and Gelfand (1998) separated individualism and collectivism into horizontal and vertical facets reflecting people's level of acceptance to equality and hierarchy. GLOBE study, on the other hand, mentioned institutional and family-based collectivism, reflecting Confucian and Mediterranean cultures respectively.

Besides the aforementioned conceptualization-related differences, there are differences regarding the measurement of individualism and collectivism. Acknowledging the fact that general constructs do not provide optimal levels of measurement, Triandis (1995) and other researchers have tried to measure individualism and collectivism dimensions in more specific level, namely at the individual level in recent years. In order to avoid confusions, Triandis, Leung, Villareal, and Clack (1985) used "allocentrism" and "idiocentrism" terms in lieu of collectivism and individualism. The researchers conceptualized **allocentrism** and idiocentrism as two distinct self-construals, which correspond to the general cultural dimensions of "collectivism" and "individualism" respectively. Allocentric individuals tend to define themselves in connection to others, emphasize shared values and common goals with in-groups, and maintaining harmony with others. On the other hand, idiocentrics tend to define themselves separately from others, emphasize autonomy, uniqueness, self-interest and self-determination (Earley & Gibson, 1998). Following this corollary, it is reasonable to expect that people are more likely to have more allocentric tendencies than idiocentric ones in collectivist cultures and more idiocentric tendencies than allocentric ones in individualist cultures (Triandis, Bontempo, Villareal, Asai & Lucca, 1988). However, as pointed out by many researchers, (e.g., Hofstede, 2001; Triandis, 2001; Triandis et al., 1985), it is sometimes erroneous to make stereotyping based on culture and make generalizations about individuals. Countries' cultures may be categorized as individualist or collectivist, it seems more appropriate to accept that an individual can be both allocentric and idiocentric in different circumstances (Triandis et al., 1985) and even at different times. Considering all this, we measured individualism and collectivism at the individual level and used "idiocentrism" and "allocentrism" terms in lieu of individualism and collectivism.

The Relationship between Coworker Trust and Cultural Variables: As indicated before, many studies are conducted in individualistic cultures, particularly in the North American countries. However, the scant number of research demonstrated that the distinction between professional and personal dichotomies is less clear in collectivist cultures compared to individualistic ones. Besides that, collectivist cultures or people with collectivist tendencies (allocentrics) were found to form close relations and put group goals ahead of individual goals. Because of the aforementioned differences, many researchers nowadays question the validity of the existing theories and claim that the development of interpersonal trust could be different than that proposed in the existing organizational literature (Sanchez-Burks & Lee, 2007). There are many studies focusing on the development of trust in coworkers. However, studies using three factor model of trustworthiness (Mayer et al., 1995) are limited in number. In their model, Mayer et al. (1995) listed trustee's ability, benevolence and integrity as antecedents of trustworthiness. The first antecedent of trust-ability refers to perceived level of skills, competencies and characteristics that enable one person to influence the other party. If employees believe that their coworkers are capable of producing high quality work, they will be more willing to trust the judgments of those competent coworkers. In other words, people's perceptions

about the competence of other parties directly affect the level of trust. The second antecedent-benevolence refers to perceptions regarding the goodness of trustee. When employees perceive their coworkers as considerate and concerned about their interests and welfare, they are thought to trust those coworkers more (Tan & Lim, 2009). While benevolence is related to intentions and reflects more emotional part of trust formation, integrity which is the last antecedent of trust is related to honesty, consistency and justice. Employees believe the integrity of their coworkers if they perceive that those coworkers adhere to principles that they find acceptable. Like the perceived benevolence and ability, perceived integrity is argued to increase the trust in another party. Although they are building blocks of trust, the relative importance of benevolence, ability and integrity could vary in different societies; even vary from person to person depending on values and norms. In a recent study (Tan & Lim, 2009) conducted in Singapore revealed the importance of considering societal effects on trust formation. Unlike Western societies in which ability is the key factor of trust formation, benevolence and integrity were found to play major role in trust formation.

As indicated above, people with individualist/idiocentric tendencies are more likely to form loosely affiliated groups based on needs and objectives, whereas people with collectivist/allocentric tendencies form and stay in a few, stable, cohesive groups that satisfy members' multiple needs and objectives (Triandis, 1995). Idiocentric people tend to believe that emotional and relational concerns ought to be set aside at work in order to focus more on the task at hand (Sanchez-Burks & Lee, 2007). By putting aside affective and relational concerns, these people seem to approach the other party more in calculative terms. In other words, trust building is based on cost and benefit analysis of individuals. If employees believe that their coworkers are competent, thus they can benefit from this relationship, they would be willing to trust those coworkers. For idiocentric people, the major antecedent of coworker trust is "perceived competency". Calculative analysis of relationships, on the other hand, runs counter to the "we" consciousness that prevails in collectivist societies or people with allocentric tendencies (Doney et al., 1998). The likelihood that allocentrics will engage in opportunistic behavior is low, because these people tend to prioritize group goals over personal goals and seek collective interests (Hofstede, 1984; Singh, 1990; cited in Doney et al., 1998). Therefore, for allocentrics, trust building seems to be based on perceived integrity and benevolence rather than competence. Empirical studies support this argument. For example, Mizrachi, Drori, and Anspach (2007) found that Jordanians who have allocentric orientation associated trust more with human motives and intentions than trustee's reliability and competence.

Since collectivists are believed to place more importance on relationships and define themselves with their relations to others, they are assumed to support trust and cooperation (Hagen & Choe, 1998; Casson, 1991). However, this intuitively appealing and empirically supported argument has been refuted by some scholars. For example, Fukuyama (1995) identified low trust cultures carrying collectivist tendencies (e.g., China, Korea) and high trust cultures carrying individualistic tendencies (e.g., Germany, USA). Similarly, respondents from two collectivist cultures, namely Japanese and Chinese cultures were found to have lower levels of trust compared to other societies in different studies (e.g., Child, 1998; Yamagishi & Yamagishi, 1994). Some researchers explain this conflicting result with in-group and out-group distinctions. According to Huff and Kelly (2003), the quality of social interactions between individuals in a collectivist culture depends on whether these individuals belong to the same in-group. Collectivists are argued to have sharp distinction between member's out-groups and in-groups (Triandis, 1995), which make them ineffective with outsiders and result in manipulative even exploitative behaviors directed to these outsiders (Watkins & Liu, 1996). In-group bias and hostile behaviors could minimize the chance of developing trust beyond group boundaries and cooperation in collectivist cultures. This argument clearly challenges the popular notion that trust is higher in collectivist countries and has been supported by some studies (e.g., Huff & Kelly, 2003). Van Hoorn (2014), for example, found collectivism to be associated with a narrower trust radius. It seems that collectivism limits the intensity of trust and make people prone to reserve a given trust level for in-group members, not out-group members. According to Van Hoorn (2014), trust radius might be better understood by examining individualism and collectivism cultural syndrome in detail.

Despite the arguments and the conflicting results outlined above, we still argue that collectivism induces interpersonal trust. We believe that people with collectivist tendencies regard their coworkers as part of their in-groups and try to form strong relations with them. Although idiocentric people have a tendency to trust their competent coworkers, their trust is more transitory and depends on coworker's ability to sustain their

competence and performance. Idiocentric people lose their trust in coworkers once the performance of the coworker declines, thus the perceived costs of continuing the relationship outweigh the benefits. Since benevolence and harmony took precedence over trustee's capabilities (Tan & Lim, 2009), allocentric people may form more long-lasting relations with their coworkers and trust in coworkers as long as they believe in their integrity and good intentions. For different reasons, we expect both idiocentrism and allocentrism to positively predict trust in coworkers. However, we expect stronger ties between allocentrism and coworker trust based on the aforementioned premises.
Hypothesis 1: Allocentrism predicts coworker trust stronger than idiocentrism.

The Relationship between Dimension of Trust and Culture: Having known to be shaped by values, beliefs and expectations, it is reasonable to expect that the development and understanding of the trust could vary from society to society, even from individual to individual. Collectivist or individualist tendencies in societies and individuals could shape the values, beliefs and expectations regarding the interpersonal relationships, thereby trust among people. In individualist cultures, pursuing self-interest through associating and collaborating with others is regarded as a logical and legitimate act, provided that the reciprocal relation is equitable and serves to both side's interests (Chen et al., 1998). Individualists tend to make cost and benefit analysis, which is a reflection of the desire to protect self interests. Since cognitive-based trust is argued to be motivated by enlightened self interest and based on the expectation that both parties treat each other equitably, it is reasonable to expect cognitive-based trust to be related to individualism and idiocentric tendencies. Besides the desire to protect self-interest, task oriented nature of individualism could induce the development of trust based on cognitions. By separating personal matters from work and placing demands not more than officially required, individualism stresses professionalism and relies on the expectation that the other party will abide by the business contract (Chen et al., 1998). In doing so, individualism or idiocentrism fosters climate for the development of cognitive trust.
Hypothesis 2: Idiocentrism positively predicts cognition-based trust in both German & Turkish samples.

In a collectivist culture, role expectations are not confined to task performance (Chen et al., 1998) and work life cannot be separated from private life in a clear-cut way. Rather than adhering to universal rules and standards of transactions, collectivists show particularistic concerns for other people by being interested in their personal problems and engaging benevolent behaviors. Social-emotional bond that goes beyond a business and professional relationship invokes emotional closeness and communal sharing, which could result in development of affect-based trust in collectivist cultures (Chen et al., 1998). A recent study conducted by Wasti et al. (2011), in a way, supported this argument. In this qualitative study, perceived benevolence, which involves cooperation, unselfish behavior and support, was found to be one of the most important antecedents of coworker trust in Turkey, which is characterized by collectivism. Since benevolence is highly regarded in collectivist cultures and it is one of the defining characteristic of affective- based trust, it seems reasonable to expect allocentrism, the individual level manifestation of collectivism to be more akin to affect-based trust than cognitive based one.
Hypothesis 3: Allocentrism positively predicts affect-based trust in both German & Turkish samples.

In addition to assessing the relationship among allocentrism, idiocentrism and trust dimensions, we assessed whether German participants' willingness to work with Turkish coworkers is affected by different dimensions of trust. The previous studies (e.g., Morris, Podolny & Sullivan, 2008) demonstrated that German work environment is characterized by professionalism and adherence to formal rules rather than affection and intense emotional bonds. We expected German participants' willingness to work with Turkish coworkers will be affected by the cognition-based trust rather than affect-based trust given the fact that cognition-based trust is related to professionalism.
Hypothesis 4: Cognition based trust positively predicts willingness to work with Turkish coworkers.

3. Methodology

Procedure: Although the aim of this study is not to make cross-cultural comparisons, data were tried to be gathered from participants having similar employment status. In order to ensure the robustness of the results, the data were collected from blue-collar employees in both German and Turkish samples. The employees were working for organizations operating in various industries (chemical, construction and

tourism industries mainly). Collecting data from the employees of different industries could have enhanced the generalizability of the findings, yet, at the same time acted as a confounding factor. Informed consent was obtained from all participants after the study was introduced; confidentiality and anonymity of the answers were ensured. No incentives were offered to ensure higher participation. Questionnaires were distributed to blue-collar employees on convenience, meaning that people who were present at the selected workplaces took part in the study. In Germany, 370 questionnaires were gathered from the 500 questionnaire distributed (74%). In Turkey, data were obtained from 150 participants, although the same number of questionnaires was distributed (30%). The response rate for Turkish sample was considerably low compared to that for German sample, yet it is still acceptable considering the average response rate figures reported by Watt, Simpson, McKillop, and Nunn (2002) for paper-based questionnaires. In both German and Turkish samples, respondents who had not evaluated more than 50% of the items were excluded from the analyses. Missing values were replaced with mean values calculated for each variable for the remaining 366 participants in German sample, 105 participants in Turkish sample.

Participants: As indicated before, participants in both German and Turkish samples were blue collar workers working with diverse organizations. The majority of the Turkish participants were male (76%) with high/vocational school and university graduates (71%). In general, Turkish participants were young as evidenced by a high percentage of people under 30 years of age (M= 31.14; SD = 8.54). The average working experience and average tenure within the organization were 8.12 (SD = 7.83) and 4.96 (SD = 6.27) respectively. Of the 366 participants in German sample, 200 (54%) were men having a high school or university degrees (51.1%). The average age of the participants was 38.60 (*SD* =10.22), mostly between 30 and 40 years of age. Compared to Turkish sample, average working experience and tenure of German participants were higher. The average working experience was 17.82 (*SD* = 9.14) while average tenure within the current organization was 8.87 (*SD* = 7.90). In both samples, average tenure within the current organization seems to be adequate for trust to develop.

Measures: The self-report survey included the measures of idiocentrism, allocentrism and coworker trust. Responses to all of the following multi-item scales were averaged to form composite variables.

Idiocentrism: In their article, Triandis et al. (1995) used the term "allocentrism "and "idiocentrism" to describe collectivistic and individualistic tendencies on the individual level. They conceptualized **allocentrism and idiocentrism** as two distinct psychological dimensions which correspond to the general cultural dimensions of "collectivism" and "individualism" respectively. Since this date, many scales have been developed to measure "collectivism" and "individualism" at the individual level under the name of allocentrism and idiocentrism. In this study, idiocentrism and allocentrism were measured with the selected items from Singelis (1994) and Singelis, Triandis, Bhawuk and Gelfand's (1995) scales (see Appendix for the items). The item selection was made based on the factor loadings reported in previous studies (e.g., Singelis et al., 1995). Idiocentrism (e.g., I enjoy being unique and different from others in many ways" and allocentrism items (e.g., My happiness depends very much on the happiness of those around me) measure people's desire for independency and interdependency by asking people whether they give priority to the private self over the collective self or vice versa. Respondents rated 5-point Likert scale ranging from "strongly disagree (1)" to "strongly agree (5)" with higher scores indicative of a higher level of idiocentrism and allocentrism tendency. However, it is noteworthy to mention that we treated idiocentrism and allocentrism as a continuum rather than a dichotomy. Therefore, the distinction found in German and Turkish societies are relative to each other. People in each society may carry individualistic and collectivist tendencies at the same time, although they attach differing level of priority to these tendencies. As it can be seen from Table 1, coefficient alpha reliabilities of idiocentrism and allocentrism were satisfactory for German (α =.70 for idiocentrism; α =.71 for allocentrism) and Turkish participants (α =.75 for idiocentrism; α =.69 for allocentrism).

Coworker Trust: Coworker trust was measured with 6-items selected from the McAllister's Interpersonal Trust scale (1995). The original scale intends to measure affect and cognition based trust with 11-items. In order to capture both types of trust, we selected three items each from cognition and affect-based trust subscales. While cognition trust is rooted in a rational assessment of the other party's trustworthiness, affect based trust is rooted in emotional bonds between another party (McAllister, 1995). Although affect and

cognition-based trust are different in terms of their origin, both reflect one's confidence to another and willingness to act on the basis of the words, actions and decisions of another (McAllister, 1995, p.25). Therefore, items measuring cognition and affect based trust could be combined to assess interpersonal trust between coworkers. In this study, we will investigate the effects of idiocentrism and allocentrism on both overall coworker trust and its sub dimensions. Responses to trust items were measured on a 5-point scale format with "1=Strongly Disagree to 5=Strongly Agree". Higher scores are indicative of higher cognition and affect based trust. The reliability of overall trust scale was high for both German (α = .89) and Turkish (α =.86) samples. The reliabilities of cognition-based trust and affect based trust were well above the criteria suggested by Nunnally (1978) (For cognition-based trust, German Sample α =.85; Turkish Sample α =.77; for affect-based trust, German Sample α = .82; Turkish Sample α =.77).

Willingness to Work with Turkish people: German participants' willingness to work with Turkish coworkers was assessed with one item (How much do you prefer your coworker to be Turkish?). Participants were asked to indicate their answers using 5-point scale ranging from "Definitely not prefer (1)" to "Definitely prefer (5).

Analyses: Before testing the roles of idiocentrism and allocentrism on coworker trust, it is needed to determine whether instruments designed to measure aforementioned variables (that is, idiocentrism, allocentrism and coworker trust) are invariant across German and Turkish samples. Following the suggestions of Steenkamp and Baumgartner (1998), multi-group confirmatory factor analysis model is used to test the invariance for two the samples. As Jöreskog (1971) suggests, first the pattern of factor loadings for each observed variables is tested for equivalence across the groups (that is, Germans and Turks). This initial test is known as "baseline line model test" and it is regarded as logical, if not necessary condition for establishing measurement invariance. After conducting baseline model tests, and showing which observed measures are group invariant, first factor loadings, followed by factor covariances and lastly error variances are constrained to be equal. The significance of factor loadings was checked by examining the standardized estimates and t-values. Besides, the robust statistics for Chi-Square, Chi Square/degrees of freedom, Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) were assessed to determine whether the measurement model fit to the data. Measuring the degree of similarity between observed covariance matrix and covariance matrix predicted by the model, chi-square value is desired to be insignificant. While CFI values of greater than .90 indicate a good fit (Bentler, 1990), values between .80 and .89 were accepted as adequate fit (Knight et al., 1992). For the other criterion, RMSEA, values of less than .05 were considered evidence of a good fit, between .05 and .08 a fair fit, between .08 and .10 a mediocre fit, and greater than .10 a poor fit (MacCallum, Browne, & Sug-awara, 1996). After ensuring the factorial equivalence, we calculated composite scores for each variable (That is, allocentrism, idiocentrism and coworker trust) by averaging the responses given to scale items. Then we regressed the allocentrism and idiocentrism on coworker trust separately for German and Turkish samples.

4. Results

Results of Confirmatory Factor Analysis (CFA): As a preliminary step in testing for invariance, we tested the validity of hypothesized three factor structure separately for German and Turkish samples. For both samples, three latent variables (coworker trust, idiocentrism and allocentrism) were hypothesized to be measured with 12 items and these latent variables were not allowed to co-vary. The baseline model shown in Figure 1, was tested first separately and then simultaneously for both samples. Initial results indicated poor fitting model for both German and Turkish samples. The reason for poor fit was found to be related to lack of covariance terms among latent variables. Given the conceptual similarity of the constructs, it seemed theoretically logical to add the covariance terms for latent variables. After this modification, the model improved substantially for both German ($\chi^2(51) = 213.290$, $p < .05$; CFI = .90; GFI =. 91, RMSEA =.08) and Turkish samples (χ^2 (51) = 82.79, $p < .05$; CFI = .92; GFI =. 89, RMSEA =.08). The model is not fitting to the data very well and further improvements were possible. Although all item coefficients were significant on the assigned factor, the modification indices indicated significant error co-variances for both samples. In order to preserve independence of factors, error co-variances of one latent factor were not allowed to correlate with those of other latent factors. In both samples, the revised models produced a fit much better than the original models. After assessing model fit, the pattern of factor loading was examined using parameter estimate

reported separately for Turkish and German employees. The parameter estimates between latent variables and items for both samples were found to be significant (p <.01). These results indicated the similarity of factor structures for Germans and Turks.

After checking the patterns of factor structure separately for each group, we tested the baseline model for both samples simultaneously and obtained relatively good fitting model (χ^2 /df = 3.00; CFI = .90; GFI = .91; RMSEA =.06). Simultaneous (multi-group) test of the baseline model yielded similar results with the separate tests such that all indicators were found to be significantly associated with their respective factors. After multigroup and single group baseline tests, we assessed the invariance of full constrained model (also known as measurement invariance). To assess invariance, we specified a model in which all factor loadings, factor variances, factor covariances and error covariances were constrained to be equal across German and Turkish samples. The model in which only factor loadings were constrained (model 1) increased $\chi2$ value from 381.95 to 311.23. Since Model 1 is nested within baseline / unconstrained model, a $\chi2$ difference test was performed. Because $\chi2$ difference, 69.280 with 12 degrees of freedom was significant at α = .01; we concluded that factor loadings were not invariant for Germans and Turks. Given the dissimilarity of factor loadings, more restrictive models were not examined. However, all item coefficients were found to be significant on the assigned factor and the relations between items and factors were in the expected direction in all tests (see Table 1). This suggests the existence of factor structure invariance. According to Steenkamp & Baumgartner (1998), measurement invariance is not necessary because it shows only the similarity of the magnitude of the relationship between item and factor. Therefore, despite the dissimilarity of factor loadings, we decided to test our model by using the same items for Germans and Turks. Consequently we used 12 items to calculate composite scores of allocentrism (3 items), idiocentrism (3 items), and coworker trust (6 items)

Before proceeding to regression analysis, we examined the reliability estimates and correlation coefficients. As seen from the table, all variables were found to be quite reliable considering .70 criterion suggested by Nunnally (1978, p.245). Correlation coefficients, on the other hand, suggested the existence of moderate relations idiocentrism, allocentrism and coworker trust. The correlations were consistent with expectations: Allocentrism was positively correlated with coworker trust in both samples. The correlations between idiocentrism and coworker trust were small in magnitude for German (r = .16, p < .01) and Turkish employees (r = .21, p < .01). The similar relations were found among idiocentrism, allocentrism and sub dimensions of trust. When we compared German and Turkish samples, we found no significant differences in terms of idiocentrism scores. However, we found that Turkish participants had significantly higher allocentrism (M=3.87; SD = .66) and coworker trust scores (M=3.77; SD = .69) compared to German participants (t (147) = 2.47, p = .02 for allocentrism; t (194) = 2.99, p = .003 for overall coworker trust).

Results of Regression Analysis: A standard multiple regression analysis was performed between overall coworker trust as the dependent variable and idiocentrism and allocentrism as independent variables. Table 4 and Table 5 displays the unstandardized regression coefficients, standardized regression coefficients, R^2 and F values of the regression analyses conducted separately for German and Turkish samples. R values were significantly different from zero in German sample, F(2, 363) = 18.30, p <.05 and in Turkish samples (F(2, 103) = 6.29, p <.05). In German sample, 10%; in Turkish sample, 11% of the variability in coworker trust was predicted by knowing the scores of idiocentrism and allocentrism. The results supported Hypothesis 1 in both samples such that the predictive power of allocentrism (β = .25, p <.05 in German Sample; β = .26, p <.05 in Turkish sample) was stronger than the predictive power of idiocentrism (β = .12, p >.05 in German Sample; β = .16, p >.05 in Turkish sample). In both samples, higher scores of allocentrism were found to be associated with higher scores of overall coworker trust.

Multiple regression analyses were performed to uncover the relationship among idiocentrism, allocentrism and cognition-based trust in German and Turkish samples. As seen from Table 4 and Table 5, the proposed regression models were significant in both samples (F(2, 363) = 12.11, p <.05 for German sample; (F(2, 103) = 8.57, p <.05) for Turkish sample). When we examined the size and direction of regression coefficients, we concluded that Hypothesis 2 was only supported in German sample. In German sample, idiocentrism positively predicted cognition- based trust (β = .12, p <.05). Allocentrism also positively predicted cognition based trust in this sample (β = .19, p <.05); quite unexpectedly the predictive power of allocentrism was found to be more powerful than that of idiocentrism (squared semi partial correlation of allocentrism sr^2 =

.20; sr^2 of idiocentrism = .12). In Turkish sample, idiocentrism could not significantly predict cognition-based trust. Contrary to our expectations, the predictive power of allocentrism was found to be significant and positive (β = .35, p <.05).

When the same analyses were conducted for affect-based trust, we obtained similar results. Allocentrism positively predicted affect-based trust only in German sample, but not in Turkish sample. As seen from Table 4, the proposed regression model was significant in German sample (F(2, 363) = 19.82, p <.05 for German sample. The model was, however, barely significant in Turkish sample, (F(2, 103) = 3.73, p <.05). As expected, in German sample, allocentrism positively predicted affect-based trust (β = .27, p <.05). In Turkish sample, neither allocentrism, nor idiocentrism was found to be associated with affect-based trust. As for the willingness to work with Turkish coworkers, while the majority of the German participants indicated their indifference (approximately 60%), only 2% of them indicated that they would prefer or definitely prefer working with Turkish people. When we assessed whether this willingness was predicted by affect-based or cognitive based trust, we obtained somewhat unexpected results. The regression model was found to be significant, (F (2, 363) = 5.57, p <.05. Affect and cognitive based trust together explained 17 % of the variance. As expected cognitive-based trust positively predicted willingness to work with Turkish coworkers (β = .24, p <.05). However, affect-based trust was found to be negatively associated with this willingness (β = -.18, p <.05).

Discussion: The main aim of this study is to investigate the role of idiocentrism and allocentrism on trust in coworkers. Allocentrism predicted coworker trust and all of its dimensions positively in German sample. As expected in Hypothesis 2, idiocentrism was found to be positively associated with cognition-based trust in this sample. The results obtained from Turkish sample were quite unexpected. Like German sample, allocentrism predicted overall coworker trust and cognition-based trust positively in Turkish sample. However, allocentrism and idiocentrism could not predict affect-based trust significantly. Hypothesis 1 was supported in both samples, yet hypotheses related to the dimensions of trust were only supported in German sample. As we hypothesized (Hypothesis 1), allocentrism in both Turkish and German, samples was found to be an important factor for the development of trust among coworkers. As indicated before, like allocentric people, idiocentric people have a tendency to trust their coworkers. For idiocentrics, the trust however depends on coworker's competency and ability to reach performance levels serving the needs of both parties, namely themselves and coworkers. Idiocentric people lose their trust in coworkers if the performance of the coworker declines or they have doubts about coworker's abilities. Allocentrics, on the other hand may form long term and intense relations with their coworkers because they tend to emphasize group goals, wellbeing, integrity and good intentions. Allocentrics take into account benevolence and harmony rather than approaching the relations in calculative terms. By promoting "we" consciousness and emphasizing on group wellbeing and goals, allocentrism seems to cultivate a culture that fosters stronger ties and trust among coworkers.

We expected idiocentrism and allocentrism to be positively associated with cognitive and affect-based trust respectively. However this expectation was supported only in German sample. In Turkish sample, cognition-based trust was predicted by allocentrism, rather than idiocentrism; affect-based trust was predicted neither by allocentrism, nor idiocentrism. The one reason for these unexpected finding could be the meaning attached to affect-based and cognitive based trust. When we examined the mean values of affect and cognitive-based trust for Turkish and German samples, we observed very close values in Turkish sample. Affective and cognitive-based trust dimensions seem to be more intertwined for Turkish sample compared to German one. Although they were found to be distinct constructs in confirmatory factor analysis, affective and cognitive-based trust might not be differentiated by Turkish participants, rendering hypothesis 2 and Hypothesis 3 unsupported. The other reason could be the strong ties between allocentrism and trust development. The trust development whether it is cognitive or affect based seem to be more associated with allocentrism, rather than idiocentrism. Allocentrism seems to play more prominent role in the development of affect and cognitive based trust by promoting us-consciousness, relationship orientation and cooperation. Lastly, we hypothesized cognitive-based trust to positively predict willingness to work with Turkish coworkers in German sample. In line with our hypothesis, German people expressed their coworker choice, based on cognitive-based trust, not based on affective-based trust. This finding could be explained with formalized, rule oriented nature of German business culture. When assessing whether they are willing to

work with a particular coworker, Germans seem to act according to professionalism, rather than emotional closeness and communal sharing. This finding, in a way supports the study of Morris et al (2008), which reported that German employees care more about instrumentality rather than affective closeness in their coworker relations.

5. Practical Implications

It is argued that organizations with high levels of internal trust are more successful, adaptive and innovative than organizations with low level of trust or characterized with distrust (Shockley-Zalabak, Ellis & Winograd, 2000). Trust within the organization is associated with a number of positive individuals and organizational outcomes such as enhanced teamwork, collaboration, employee satisfaction and commitment. Therefore it becomes imperative to understand the antecedents or predictors of trust in today's business world, requiring intense collaboration and teamwork. Besides uncovering the predictors of coworker trust, this study demonstrates differential effects of idiocentrism and allocentrism on dimensions of coworker trust. With such knowledge, expatriate managers may better understand their local staff and manage global teams having members with idiocentric and allocentric tendencies. Although propensity to trust is mostly regarded as a personality trait, it can be shaped by cultural values of society, which are well known to influence the perceptions of people regarding dyadic relations. We believe that cultural factors as distal predictors of the nature and strength of relations could be a starting point for enhancing trust within and between the organizations. For example, as one of predictors of trust, benevolence could be promoted through company meetings, teamwork and appropriate reward structures in companies in which employees mostly have allocentric tendencies. Rather than establishing reward structures characterized with "zero sum games", distributing monetary and non-monetary rewards based on collaboration and equality principle could enhance coworker trust especially among allocentric people. On the other hand, practitioners could use different strategies for promoting coworker trust if employees have idiocentric/individualist tendencies. The coworker trust could be enhanced among idiocentric employees if managers could show that the benefits of collaboration outweigh the costs associated with it. Stressing the importance of professionalism and teamwork, linking positive outcomes of teamwork to individual-level outcomes/rewards could induce calculative process, which is argued to be the predictor of coworker trust in individualistic societies.

This study reveals that employees having allocentric tendencies are more prone to trust their coworkers. If manager can select individuals having these tendencies, there is a higher likelihood that these individuals will be more willing to rely on their coworkers and maintain good relations with them. Even after selection, managers may utilize effective management tactics to cultivate allocentric tendencies by rewarding collaboration and teamwork. However managers should acknowledge that idiocentrism is not a treat for the development of coworker trust. Idiocentrism could still play a significant role on coworker interactions by affecting cognition-based trust and other factors. Although the main aim of this study is not to make cross-cultural comparisons, the results indicated that affect-based trust in Turkish sample is not affected by allocentrism, as in German sample. As indicated before Turkish participants did not seem to differentiate dimensions of trust and probably assumed that affect and cognition-based trust exist together. Such a difference is noteworthy for Turkish managers because violations of one trust dimension could give damage to other trust dimension. For example, acting against professionalism and predefined role expectations could give damage not only to cognition-based trust, but also affect-based trust. Therefore, Turkish managers should be careful about the maintenance of trust and try to refrain from actions harming trust within the organization.

Last, but no means not the least, the finding that the Germans' willingness to work with Turkish people is affected by cognition-based trust has important implications for management. In order to increase the willingness of German employees, managers should stress the importance of reliability, dependability and professionalism, which are building blocks of cognitive-based trust in all interpersonal interactions. Managers could enhance professionalism by clearly setting and communicating role expectations and performance standards; monitoring whether all standards and rules are followed and giving timely accurate feedback. Apart from this, by showing the contribution of each employee to organizational or team performance, managers could give important insights about whether a particular person is reliable and dependable.

Limitations & Future Studies: The limitations of the study should be acknowledged before setting directions for research. The study has some conceptual and methodological limitations, which limit the external and internal validity of the findings. Conceptually, the nature and number of variables included in this study provided limited perspective regarding the development of coworker trust. Our article centers on the influence of only allocentrism and idiocentrism on the development of coworker trust although trust-building may be influenced by a variety of organizational, relational, or individual factors (Doney & Cannon, 1997; McAllister, 1995). We suggest that researchers to investigate the effects of individual and organizational level variables such as propensity to trust and organizational culture in order to provide more comprehensive perspective regarding coworker trust. For example, future research may extend the existing literature by integrating "Team Member Exchange Theory" (TMX), which takes into account the quality of relationships between group member and fellow group members (Lau & Liden, 2008). High quality team member exchanges could act as antecedents of coworker trust by creating a supportive and collaborative work environment. On the other hand, the trust between coworkers could also create high quality exchanges among team members by enhancing more resource sharing. Addressing this reciprocal relationship would be helpful for gaining deeper understanding of trust formation within the organizations.

Since this study focused only on coworker trust, its findings have limited generalizability to other types of trust, namely supervisor or organizational trust, which could be shaped by more calculative factors like reward structures and appraisal procedures. Therefore we suggest researchers to examine the same hypotheses for different referents of trust such as supervisor, organization and subordinate. As indicated above, the study has methodological limitations as well. The first methodological limitation is related to research design. This study provides snapshot view of the constructs since it measures all the constructs and tests the relationships at a single point in time. Although snapshot studies give important insights about hypothesized relations, they provide limited knowledge about the development of a particular variable over time. In this study, we demonstrated the linkage between cultural parameters and coworker trust, however we could not uncover the process by which coworkers trust or its dimensions develop. In future studies, the researchers could use longitudinal designs or collect data through interview technique to make more process-oriented or in-depth analysis of trust. The second methodological limitation is related to response rate. As indicated before, the response rate is considerably low in Turkish sample, Although Visser, Krosnick, Marquette and Curtin (1996) reported that surveys with lower response rates (near 20%) yielded more accurate measurements than did surveys with higher response rates, like many researchers, (e.g., Pinsonneault & Kraemer; 1993). We still acknowledge that low response rates could cast doubts about the validity of the results. Therefore we suggest that researchers obtain data from samples having comparable characteristics, yet with high response rates.

Lastly, limitation may arise from self-report data collection and cross sectional research design. We collected all the data from same people at the same time. Although Harman's one-factor test (Podsakoff & Organ, 1986) and multi-group confirmatory factor analysis demonstrated the distinctiveness of the constructs, collecting single source data with self-report methodology might still cause common method variance problem. This problem could have inflated the correlations between variables and result in spurious results. Several remedies such as data collection from different sources at different times could have taken to rule out this problem and increase the validity of the results. The current study is a promising beginning; future research might be enriched with measures complementary to self-reports. In summary, the findings of the present study supports the belief that allocentrism supported trust development. Despite its limitations, this study sheds light on the differential effects of idiocentrism and allocentrism on different dimensions of coworkers' trust. By using the findings of this study, managers could cultivate cultures that promote trust among coworkers.

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Appendix

Idiocentrism

1. I enjoy being unique and different from others in many ways
2. I often do my own thing.
3. My personal identity independent of others, is very important to me.

Allocentrism

1. My happiness depends very much on the happiness of those around me.
2. It is important to maintain harmony within my group
3. Before taking a decision, it is important to consult with my close friends

Coworker trust

1. We have a sharing relationship. We can both freely share our ideas, feelings, and hopes.
2. I can talk freely to this individual about difficulties I am having at work and know that (s)he will want to listen
3. We would both feel a sense of loss if one of us was transferred and we could no longer work together
4. This person approaches his/her job with professionalism and dedication.
5. Given this person's track record, I see no reason to doubt his/her competence and preparation for the job
6. I can rely on this person not to make my job more difficult by careless work.

Table 1: Results of Multigroup Confirmatory Factor Analysis

	German			Turkish		
Path from _to __	**B**	**SE (b)**	**B**	**B**	**SE (b)**	**B**
Id1 to İdiocentrism	.75	.06	.85**	.92	.10	.86**
Id2 to İdiocentrism	.58	.05	.76**	.74	.10	.69**
Id3 to İdiocentrism	.12	.05	.16*	.64	.10	.63**
Al1 to Allocentrism	.42	.05	.64**	.72	.12	.82**
Al2 to Allocentrism	.48	.06	.62**	.51	.11	.56**
Al3 to Allocentrism	.22	.06	.24**	.28	.08	.35*
Tr1 to Trust	.65	.05	.67**	.67	.09	.68**
Tr2 to Trust	.63	.05	.64**	.73	.08	.73**
Tr3 to Trust	.64	.05	.62**	.60	.10	.59**
Tr4 to Trust	.97	.05	.89**	.59	.07	.72**
Tr5 to Trust	.92	05	.86**	.54	.08	.70**
Tr6 to Trust	.67	.05	.69**	.74	.09	.76**
Covariance						
Allocentrism-Trust.	.35**	.05		.35**	.09	--
İdiocentrism-Trust	.35**	.05		.35**	.09	--
Allocentrism-Idiocentrism	.40**	.07		.44**	.11	--

Table 2: Descriptive Statistics of Variables of Interest--German Sample

	M	**SD**	**A**	**1**	**2**	**3**	**4**	**5**
1. İdiocentrism	3.98	.60	.70	1				
2.Allocentrism	3.70	.55	.71		1			
3.C.Trust (total)	3.53	.69	.89			1		
4.Affect-trust	3.40	.85	.82				1	
5.Cog.trust	3.66	.92	.85					1

Note: *: significant at .05 level; ** significant at .01 level.

Table 3: Descriptive Statistics of Variables of Interest--Turkish Sample

	M	SD	A	1	2	3	4	5
1. İdiocentrism	3.93	.87	.75	1				
2.Allocentrism	3.87	.66	.69		1			
3.C.Trust (total)	3.77	.82	.86			1		
4.Affect-trust	3.73	.79	.77				1	
5.Cog.trust	3.80	.71	.77					1

Note: *: significant at .05 level; ** significant at .01 level.

Table 4: Summary of Regression Analysis for Variables Predicting Affect and Cognition-Based Trust: German Sample (n=366)

	Overall Coworker Trust			Affect-based trust			Cognition-based trust		
	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B
Idiocentrism	.16	.07	.12	.14	.07	.10*	.18	.08	.12*
Allocentrism	.38	.08	.25**	.43	.08	.27**	.32	.09	.19**
R^2	.10			.10			.06		
F	18.30			19.81			12.11		

Table 5: Summary of Regression Analysis for Variables Predicting Affect and Cognition-Based Trust: Turkish Sample (n=105)

	Overall Coworker Trust			Affect-based trust			Cognition-based trust		
	B	SE (B)	β	B	SE (B)	β	B	SE (B)	B
Idiocentrism	.12	.08	.16	.17	.09	.19	.08	.08	.10
Allocentrism	.28	.10	.26**	.18	.12	.15	.37	.10	.35**
R^2	.11			.07			.15		
F	6.29			3.73			8.57		

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Boosting Corporate Social Responsibility in Tourist Destinations through Loyalty Programs and Stakeholder Collaboration

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Abstract: Two opposite approaches gravitate around Corporate Social Responsibility (CSR): shareholder vs. stakeholder approach. The first paradigm is classical: stating a company has one primary purpose i.e. profitability and is responsible to its shareholders. The second one sees the company not merely in function of its primary goal but also responsible to its employees, providers, local community, the environment etc. It is indisputable that a company operates in a certain context and in order to pursue its reason of existence it has to maintain good relationship and collaborate with others directly or indirectly involved or affected by its business, to a degree that is in line with its primary goal. This starting point was the base to integrate CSR and relationship marketing. CSR is a voluntary based concept. The purpose of this paper is to enhance CRS implementation in tourism. The authors propose a model that will encourage tourism companies to systematically and comprehensively include various CSR practices in their business, which will have a positive impact on the destination as a whole. The realization of the model gathers qualified tourism companies in an exclusive destination loyalty program and further promotes them as superior tourism providers. The involvement of all stakeholders of the tourist destinations in individual phases of the project is part of the proposed model. The model is easily applicable in practice.

Keywords: *Destination management, stakeholders, CRS, loyalty programs, collaboration*

1. Introduction

In today's information overload world, where knowledge is quickly and easily accessible thanks to ICT, customers have the power and the dominant role. Their expectations are increasing, as well as expectations of other stakeholders in tourism destinations and trends show that socially responsible business management is more appreciated. Namely, results of market research prove the willingness of consumers to pay extra money for social responsibility when planning their vacations. A survey of 20,000 German households indicates that 33% of them in deciding the holiday destination take into account ethical, social and environmental reasons. More than 40% of renters are willing to pay more to stay in an eco hotel (GFKPS, undated). Of the 20,000 households surveyed, one in four expressed the willingness to support environmental and social activities, which contribute to environmental protection and climate change mitigation (Messe Berlin, undated). In the case of tourism destinations, relationships within CSR are far more complex than those at the level: *company – customers - shareholders - the environment (socio-cultural and environmental) - other stakeholders* as a tourist destination is actually a combination of all the above, and more. Different companies are the representatives of the offer of a tourist destination. Guests perceive a tourist destination as a whole, as a complex tourist product. However, a tourist destination cannot be considered a tourist product not without tourists in the area, without their active involvement in the process of consumption, which, in case of tourism, takes place simultaneously with production. A tourist destination is not even a system if there is no tourism and there cannot be any tourism if there are no attractions and supporting tourism infrastructure. A tourism destination is a dynamic and complex organism involving many different and diverse groups of stakeholders. Given that stakeholders are the ones who ultimately define a tourist destination, the key to any initiative in the management of tourist destinations should be a collaboration that will direct various efforts in one direction toward a common goal. In this paper, the common goal is corporate social responsibility in tourism. Stakeholders will be initially educated on the topic and will participate in the development and adoption of regulations that will enable certain companies to be included in a loyalty program. By applying the principles of motivation, eligible tourism companies will be enrolled in an upscale destination loyalty program and will be additionally promoted.
There has been little research on how to integrate the interests of all the different stakeholders into the corporation's decision-making and management processes and on the effects of adherence to these practices (Ayuso & Argandona, 2009). Less attention has been paid to concrete mechanisms for including a wide array of stakeholders in company governance and for using these mechanisms as a way of addressing the needs of

diverse stakeholders within a strategy of CSR (Ayuso & Argandona, 2009). A review of literature found only one paper dealing with the topics of CSR and loyalty (De los Salmones, Del Mar & Del Bosque, 2011), however, this behavioral study considers customer loyalty towards CSR conscious companies, but none that links these two concepts like in the proposed model. This paper is composed of three parts. The literature review deals with stakeholders' engagement in destination management, corporate social responsibility and loyalty programs. A model of a participative approach to the implementation of CRS in tourism destinations thought loyalty programs is given in section two, followed by the conclusion.

2. Literature Review

Stakeholders' engagement in destination management: Nowadays many destinations have an increased interest in concepts of stakeholder engagement particularly in the process of destination management. Their role is extremely important in the process of strategy development due to their activities being resources to make it happen. The point of developing a destination strategy means realizing that strategy's not just about what's written on the paper but about the thinking and feeling processes of the stakeholders in the destination. We have to actually think of designing a social process such that people can really grapple with the big ideas and come to grips with changing deeply held biases about what the destination should do in the future. Decisions in the destination should be the result of interaction between public and private institutions and society. They need to work together within a set of values and principles: openness, participation, consultation, dialogue, innovation, coordination, strong leadership, effectiveness, accountability, and more.

Stakeholder engagement should have a product-based focus, as a main point of destination to *create tourism experiences and assure competitiveness.* This has brought to the evolution of destination management to becoming a more cooperative system. Stakeholders can be defined as any individual or group who can have an influence on the development of tourism destination and who are affected by the development of tourism in the destination. From a stakeholder's perspective, a destination can be seen as an open-social system of interdependent and multiple stakeholders (D'Angella & Go, 2009, pg. 429). Stakeholders are defined as any group that has vested interest in the operations of the firm / organization (Stanwick & Stanwick, 2009, pg. 34). Stakeholders are individuals or groups who have an interest in an organization's ability to deliver intended results and maintain the viability of its products and services (Carpenter & Sanders, 2009, p. 76). The tourism industry is complex network of stakeholders. Typical stakeholders in tourism planning process are (Yigitcanlar, 2009): *local businesses*, *residents*, *activist groups*, *tourists*, *national business chains, competitors, government, employees.* There are others such as *investors/developers, land owners, environmentalists (activist groups), industry associations, tourism marketers* and others. For Morrison (2013) stakeholders in destination management are: (1) tourists (leisure /pleasure; business; etc.); (2) tourism sector organization ((DMOs, hospitality, attractions; transport; travel trade; media, employee organizations); (3) community (community organization, resident associations; business associations; special panels or task forces; etc.); (4) environment (NGOs; conservations societies; environmental agencies, etc.); (5) government (local, regional, state, etc.).

These stakeholder groups influence tourism development in many ways including tourism supply and demand, regulation, and management of tourism impacts, human resources and research (Waligo et al., 2013, pg. 343). Harrison & Lewellyn (2004) identified four roles through which stakeholders impact organizations:

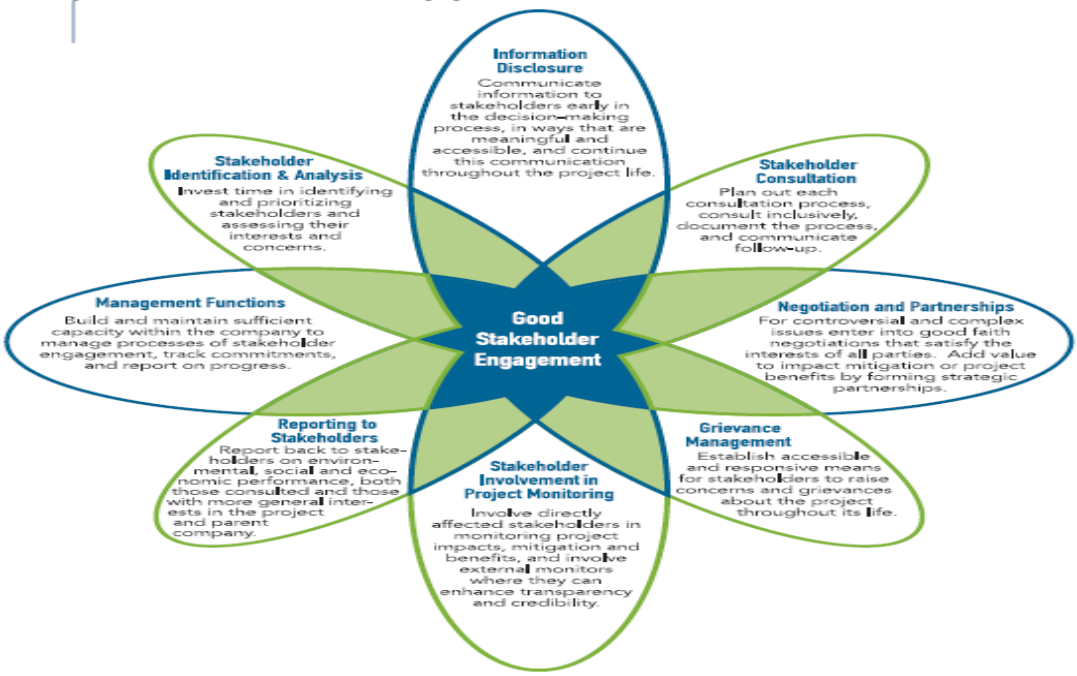
- Stakeholders establish expectations (explicit or implicit) about corporate performance;
- Stakeholders experience the effects of corporate behaviors;
- Stakeholders evaluate the effects of corporate behaviors on their interests or reconcile the effects of those behaviors with their expectations; and
- Stakeholders act upon their interests, expectations, experiences, and evaluations.

The same impact stakeholders can have on tourist destination due to the possibility of linking main characteristics of a company with those of the destination both being systems or networks of stakeholders pushing the forces towards achieving the commonly defined goals. The main reasons of grouping stakeholders are understanding and appreciation in managing them.

Various stakeholders influence one another. The classical example in tourism is the battle between environmental interest groups and local community on one side pressuring local authorities against urbanization in the function of construction and hospitality lobby. The engagement of relevant stakeholders of tourism destinations in the initial phases is not often performed. Engagement enables stakeholders participate in the decision-making process. Based on research, a stakeholder engagement process for a destination (Sustainable Tourism Online, 2013):

- **Recognizes the concerns and goals** of all tourism stakeholders is important for planning, decision-making and developing mutually beneficial strategies and actions;
- Engages stakeholders based on their interest, skills and expertise to ensure a comprehensive basis of knowledge for planning;
- Understands and communicates the value of tourism, including economic, social and environmental, to stakeholders is important to gain support and participation in destination planning and management;
- Develops a shared understanding of tourism in a region, including the values and ideals of the destination is important for an agreed tourism focus;
- Develops an agreed vision that provides a focus for future planning, development and management of tourism in the destination;
- Identifies clear roles and responsibilities of all stakeholders. This could be an informal process or through the development of partnership agreements or MoUs;
- Identifies the governance structure for destination management as an important framework that clearly outlines communication, reporting and decision-making processes.

Figure 1 : Good Stakeholder Engagement



Source: International Finance Corporation (2007) Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets, Washington: IFC, http://www.ifc.org/wps/wcm/connect/938f1a0048855805beacfe6a6515bb18/IFC_StakeholderEngagement.pdf?MOD=AJPERES pg. 12.

The outcomes of stakeholder engagement process are (Gray, 2006, pg. 10): (1) improved personal and/or working relationship; (2) changing perceptions (for the better); (3) improved communication channel; (4)

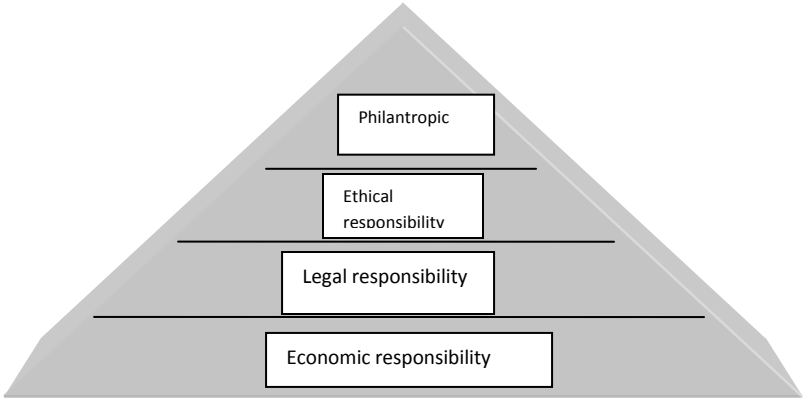
promotion of wider cycle of responsibility for decisions and actions – corporate citizenship; (5) agreement on purpose and direction of a project or program; (6) early identification of potential issue, conflicts and benefits; (7) generation of new ides; (8) formation of new formal partnership; (9) diffusion of conflict situations before these impede progress; (10) enhancement of social capital and/or improved services for people; (11) policy change; (12) cost savings in the medium to long-term; (13) promotion of local capacity building and learning (individual and organizational); (14) local support and goodwill fostered for a new idea or initiative; (15) increased community cohesion and strengthened shared identity. According to International Finance Corporation the following illustration shows the key components of effective stakeholder engagement process.

There are various methods of stakeholder engagement process. The majority of them follow the Deming cycle – Plan – Do – Check – Act. Accountability (2011) in the second edition of AA1000 Stakeholder Engagement Standard differentiated the following process: plan (profile and map stakeholders, determine engagement levels and methods, identify boundaries of disclosure, draft engagement plan, establish indicators), prepare (mobilize resources, build capacity, identify and prepare for engagement risks), implement the engagement plan (invite stakeholders to engage, brief stakeholders, engage, document the engagement and its outputs, develop an action plan, communicate engagement outputs and action plan), review and improve (monitor and evaluate the engagement, learn and improve, follow up action plan, report on engagement). The key to the long –term success of a destination represents an ability to find a compromise among all relevant interests, which is especially important considering that there may be conflicts, if some "greedy" stakeholders try to maximize their short-term benefits by exhausting the resources (Buhalis, 2000). Effective destination management is not only in the hands of the DMO, but also requires effort by other stakeholders within the destination and partners in other places (Morrison, 2013, 16). Collaboration with other organizations and individuals is a must, especially in an era where the financial challenges are great and the competition is intense (Morrison, 2013, 16). Destination management is a process that involves coordinated actions to benefit the destination's environment, residents, business and visitors, addressing the relationship between them. It should be carried out by local authorities and other tourism stakeholders in partnership, following the principles of good governance. It is central to the delivery of sustainable tourism as often actions taken within destinations are best able to influence the tourism impacts. (Destinet, 2013) An active process of discussion and negotiation should ensure that each set of stakeholders accepts and owns a share of the responsibility for supporting the process, for example through supporting the manager, setting development objectives, planning and implementing process (Beardwell & Claydon, 2010, 34).

3. Corporate Social Responsibility in tourism

The concept has existed in practice far before it formal theoretical formulation as many companies have been following the principles that fall under CSR. The term is also known as: social responsibility, corporate sustainability, corporate citizenship, agency theory, corporate governance and other. European Commission defines CSR (2001, p. 7) as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders (owners, shareholders, customers, providers, government, media and public) on a voluntary basis". Vogel (2004, p. 3) explains it as "policies and programs of private firms that go beyond legal requirements as a response to public pressures and societal expectations". Social responsibility rises above business ethics because operating in a socially responsible way, in addition to compliance with laws and ethical decision-making, means functioning in society as a consummate citizen, taking care of the environment, protecting the environment and reducing the negative impact on the environment, caring about people, and being profitable in the long term. According to Sohail, corporate social responsibility is a business contribution to sustainable development and helps the corporations for their long term success and as well as good for society (Sohail et al., 2008). CSR can be defined from many aspects – economic, legal, ethical, philanthropic (Jucan and Jucan, 2010).

Figure 2 : Carroll's pyramid of responsibilities



Source: Carroll (1991). The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders.

Figure 3: The evolution of CSR

Source: W. Visser (undated): The stages of CSR, http://www.csrinternational.org/about/stages (301.10.2014.)

A CSR orientation besides contributing to society, benefits also employees, consumers, boost profits, and even helps stave off regulatory threats from government (Bohdanowicz & Zientara, 2008; Eraqi, 2010; Weber, 2008). The key non-financial performance factors that have direct influence on financial factors are: (CSR Europe, 2010) human capital, customer relation, society, environment, innovation and corporate governance. The appropriate metrics to evaluate them include: employee engagement (absence rate, staff turnover, health and safety, fair restructuring, training, performance management, equality and diversity, reputation, commitment to customer, talent recruitment and retention), customer satisfaction (customer loyalty, retention, reputation, trust, price, product, service quality, competitive positioning), public perception and supply chain management (opinion former perception, media coverage, community investment, stakeholder dialogue, legal/regulatory breaches, license to operate, inclusion, social capital), carbon emissions and waste management (energy efficiency, deployment of renewable, waste reduction, recycling, environmental impacts, environmental breaches, lifecycle assessment), new products and process development (value of patents, customer perception, talent recruitment and retention, training, R&D expenditure) and ethical integrity, processes and procedures (ethical code deployment, board composition, equality and diversity,

talent development, audit processes, reporting and transparency, reputation, shareholder interests, anticorruption policy/practice, competitiveness). CSR is thus a dynamic process that evolves over time, in line with changes in the company environment and according to the moral maturity of the organization itself (Argandoña & Hoivik, 2009).

According to CSR International Founder, Visser, the evolution of business responsibility can be viewed as of five overlapping economic periods – the Ages of Greed, Philanthropy, Misrepresentation, Management and Responsibility – each of which typically manifests a different evolutionary dimension of CSR, namely: Defensive, Charitable, Promotional, Strategic and Transformative CSR (which can also be called CSR 2.0, Systemic CSR or Radical CSR). The explanation of the different types is the following:

A. Defensive CSR – all of the corporate sustainability and responsibility practices are undertaken only if and when it can be shown that shareholder value will be protected as a result e.g. pollution controls costs are seen to fend off regulation or avoid fines and penalties.

B. Charitable CSR in the Age of Philanthropy is where a company supports different causes through donations and sponsorships, typically administered through a Foundation, Trust or Chairman's Fund and aimed at empowering certain groups or civil organizations.

C. Promotional CSR in the Age of Misdirection is what happens when corporate sustainability and responsibility is seen mainly as a public relations opportunity to enhance the brand, image and reputation of the company. Promotional CSR practices are turned into PR spin, which is known as 'greenwash'.

D. Strategic CSR, emerging from the Age of Management, means relating CSR activities to the company's core business (e.g. Coca-Cola and water management), often through adherence to CSR codes and implementation of social and environmental management systems.

E. Transformative CSR in the Age of Responsibility focuses its activities on identifying and tackling the root causes of our present unsustainability and irresponsibility, typically through innovating business models, revolutionizing their processes, products and services and lobbying for progressive national and international policies.

The answer to the question of what the company should emphasize in the implementation of corporate social responsibility ranges from selecting some elements of social responsibility (e.g. environmental components or just a social component, etc.) to the application of the principles of CSR in all business segments. Decision making of such matters should not be taken by tourism businesses on their own, but the selection of priority responsibilities should be taken bearing in mind the needs and interests of tourists, and target market, locals as well as other interested stakeholders. The main reason of non implementation of the concept is managerial unawareness and lack of education (Goodall & Stabler, 1997; Kasim, 2009). Internal managing of corporate responsibility is an issue to take in consideration. There is no universal way to manage, "One size fits all" as every company has unique characteristics. Some companies establish a Social Responsibility Committee; some redefine the roles of management, open special jobs for managers of social responsibility or designate a specific person to be responsible for social responsibility.

CSR has been overshadowed by the related concept of sustainability which is another reason for its limited popularity in tourism (Levy & Park, 2011). Namely, hospitality companies show their CRS efforts mainly thought environment preservation (Andereck, 2009; Bohdanowicz, 2007; Heung et al., 2006; Houdre, 2008; Mensah, 2007). There are many green initiative bodies that offer certifications thus their recognition from the public, because of the numerous certification providers, is becoming an issue. In tourism, besides focusing on the environment resources, are also other issues which can be addressed like securing employment and existential needs, especially for women and young people, purchasing fair trade goods, preservation of tradition and customs, donations to charity etc. According to Argandona (2010), social responsibility and its theoretical foundations and instruments might also help (in combination with other mechanisms) in solving the problem of tourism overdevelopment given the failure of individual, collective and political actions in Spain. Factors affecting CRS implementation in hotels include: economic reasons, branding, ethical considerations of managers and owners, society and regulatory pressure and employee relations (e.g., Butler, 2008; Han et al., 2009; Kasim, 2007; Mair & Jago, 2010; Tzschentke et al., 2008 as cited in: Levy Park, 2011).

Loyalty programs: Loyalty programs (LP) are a system of rewarding customers for frequent buying of products or services. They are considered part of CRM (consumer relationship management) strategy and used also as an instrument of as sales promotion within the marketing communication mix. Criteria are defined according to which buyers are categorized as loyal customers (in tourism it is usually the number of arrivals). Some loyalty programs are based on collecting points, where consumption is converted into points which are then exchanged for gifts, benefits or discounts. Synonyms of LP are frequent purchase/ shopper programs (Shoemaker & Lewis, 1999; Long & Schiffman, 2000; Bell and Lall, 2002) or reward programs (Kopalle et al., 1999; Kim et al., 2001). Various are the definitions of consumer relationship management, however the keywords in most definitions include the connection between the company and the customer and the long-term relationship of a company with its customer (Gummesson 1999). The idea behind maintaining relations with customer is to increase benefits for both customers and the company (Turban et al. 2002).

It all started in the 1970s, when some European researches in B2B marketing discovered that suppliers who form closer professional relationships with their customers tend to have "better" customers (Hakansson, 1982 as cited in: Dowling and Uncles, 1997). The 1980s saw a rapid expansion of competitors and classical mass marketing activities were not the ideal solution to the new setting (Godson, 2009). Relationship marketing emerged in those circumstances and can be seen as a new marketing paradigm whereas direct communication centered on sales switched its focus on creating and maintaining relationships with the customers. Later research claimed that loyal customers are more profitable to a company (Reichheld & Sasser, 1990; Reichhels & Teal, 1996; Reichheld, 1996; Rust & Zahorik, 1993). As it is well-know that gaining a new customer costs more than induce an old one to purchase again, retaining customers strategy seems like the source of sustainable competitive advantage (Jenkins, 1994 as cited in: Dowling and Uncles, 1997). Since the American Airlines lunched the first contemporary LP in 1981 (Liu, 2007), the topic has been largely studied by professionals, marketers and consultant but in less degree by academics (Kivetz & Simonson, 2003). LP were initially common in travel related industries such as airlines, hotels and rent-a-car and gained in popularity in other industries with the advent of ICT that enabled one to one communication (Deighton, 2000). Computerized database technologies and CRM system are an essential support to manage LPs. It should be stressed that those tools are not about the software itself, rather about the strategic approach used. Besides obviously retaining existing customers, organizations and companies setting up LP want also to (1) maintain sales levels, margins, and profits (a defensive outcome to protect the existing customer base), (2) increase the loyalty and potential value of existing customers (an offensive outcome to provide incremental increases in sales, margins, and profits), and (3) induce cross-product buying by existing customers (defensive or offensive) (Dowling & Uncles, 1997). The benefits of LP include also gaining market research information about existing customers.

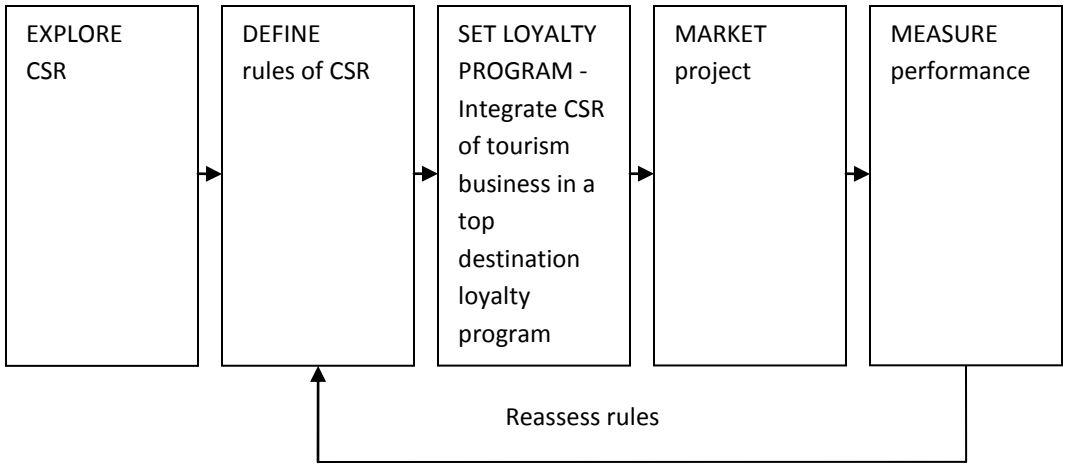
Different factors such as perceived effort to reward (Kivetz & Simonson, 2002) and value of reward affect the success of LP and up to now there is no consensus about their effectiveness. Some LP programs are highly successful (e.g. Frequent flyer) while others fail (Kivetz & Simonson, 2003). Investigating the behavioral aspect of LPs is pretty common: Soman (1998) and Kivetz & Simonson (2002) have studied the effect of delayed incentives on consumer decisions. A study (Garcia-Gomez, Gutierrez-Arranz & Gutierrez-Cillan, 2006) in the retail industry showed the influence of LP on behavioral loyalty of participants is minimal, as most of interviewed claim that their purchase behavior varied very little, if at all, since they joined up. The same was found according to others (Sharp & Sharp, 1997; Bell & Lall, 2002) other studies that also investigated the behavioral component showed that customers enrolled in LP tend to visit competitors less frequently (Passingham, 1998; Meyer-Waarden, 2002). It can be argued that LP can at least be attributed the ability to retain already loyal customers. However LPs positively influence affective loyalty, as participants of LPs show higher levels of positive attitude, satisfaction, trust and commitment than non participants in LPs (Garcia-Gomez, Gutierrez-Arranz & Gutierrez-Cillan, 2006). True loyalty based on emotional bonds is hard to copy, so it can be a competitive advantage (Palmer & Beggs, 1998). Most studies focus on a single LP program and fail to consider the whole situation – competitors' LPs, a company's competitive position and market saturation. In such a contest it was proved that in case the product category is highly expandable the saturation effect of LPs disappears allowing the coexistence of multiple LPs (Liu & Yang, 2009). The debate about the effectiveness of LP, with however little empirical evidence (Lewis, 2004), continues. The effectiveness of LPs has been oftentimes questioned, yet few researches deals with customer perception of

LPs (Lacey & Sneath, 2006; Mimouni-Chaabane & Volle, 2010). This paper will not contribute to the topical debate, as LP will only be used as an instrument to motivate businesses in tourism to attain the goal of social responsibility.

4. Model proposal and discussion

A collaborative model for tourism destination that integrates CRS practices in a destination loyalty program is represented in Figure 6.

Figure 4 : Participative approach in fostering corporate social responsibility in tourism destination through loyalty programs



Source: authors' contribution

The model will be explained step by step.

a. **EXPLORE CSR** – this step includes educations about the topic, workshops with representatives of stakeholders, initial brainstorming and sum up of goals. Overview of best practices in tourism should be presented.
b. **DEFINE rules of CSR**- the rule book of CSR practices will be the result of this step. The development of regulations that will enable the enrollment of business companies in the new loyalty program will again include all relevant stakeholders. A draft proposal will be further worked through (in case of inability to achieve individual requirements) after public hearing till a consensus of group decision making is reached.
c. **SET LOYALTY PROGRAM - Integrate CSR of tourism businesses in a top destination loyalty program** - this step refers to the setting up the loyalty program. A special destination card will be created where only those companies that are socially responsible according to set rules will be included. All companies that adhere to the regulations, even those who compete with each other, will take part of the program. All relevant decisions regarding benefits related to guests (discounts, services included etc.) will be taken. It is advisable to invest in CRM (Consumer Relationship Management) based cards.
d. **MARKET project** – Setting the prices, choosing the distribution network and promotion of the set loyalty program as a new destination product (defined a step earlier) are crucial activities in step four. Motivate local businesses to become part of the program, make the benefits they gain appealing. Costs, donations and profit sharing are discussed prior to pricing decision. DMOs should sell destination cards through their offices and online. Investments in promotion of socially responsible companies involved with the project of destination cards will be higher (DMO website, media coverage etc.). By purchasing such destination card, tourists will be informed that a portion of the sale is donated to a local cause or it might be decided to give thematic donations each year by making a dedicated donation to a different institution or organization. It will be clearly noted that everybody, starting from tourists

as well as the companies involved in the project do more for the destination than what is set within the legal framework.

e. **MEASURE performance** - select metrics according to goals (of both CSR and loyalty program) and measure results. Inform stakeholders of the progress. Based on feedback in case of necessity, reassess rules.

Besides enhancing implementation of CSR, the model is in function of the following goals of tourist destinations:

- increased extra consumption,
- increased sales of destination tourism products in general,
- sales promotion: discounts and other activities,
- establishing and maintain relationships with customers,
- collect of data about customers and their preferences,
- improving support for tourists,
- better provision of information according to the needs of tourists (e.g. attractions, events),
- increased loyalty towards tourist destination,
- enrichment of tourist products of the destination,
- increased awareness of destination brand,
- improvement in relations with stakeholders etc.

By creating an own rule book which acknowledges the particularities of a destination and wishes of stakeholders, tourism companies will be directed to apply CSR as established good business practices. Due to the multiplier effects of tourism, by choosing suppliers and other partners in accordance with defined principles of CSR, it is possible to affect companies outside of the sphere of tourism. The model can be used to achieve the leading position in terms of CSR in comparison to other destinations and represents one step forward towards sustainable development of tourism destinations.

5. Conclusion

The notions of CSR and loyalty programs are not new. Theoretical connections of CSR and relationship marketing theory were made and a practical contribution has also been given. The paper deals also with the particularities of implementing CSR-based loyalty programs in tourism destinations where competing companies, not only complementing ones, are welcome to take part in the initiative. The proposed model aims at enhancing voluntary engagement of tourism companies in CSR by offering them additional promotion and a distribution network of the set loyalty program thought DMOs offices. A destination loyalty program aimed at respecting the natural environment, the socio-cultural resources and offering high end services at affordable prices might be a trigger to returning visits. The necessity of cooperation in destination management stems from the very essence of a tourist destination, and it is even more pronounced within the proposed model as CRS and loyalty programs include long-term perspective and commitment of the company and DMO, therefore, decisions should be well rethink. The model is an example of a collaborative management in tourist destinations that aims at aligning goals and resources of the tourist offer on one side and the interests of the representatives of all other stakeholders of the destination on the other. It is essential to observe CSR in tourism destination as an integral concept in line with a sustainable strategy in order to help ensuring a constant sustainable development of tourism destinations.

Managing tourism companies as well as destinations in the new era, means adapting to the new rules imposed by the market, to new ways to compete and higher expectations of tourists in terms of social and ethical activities and results. The scientific contribution is evident from the evolutionary *„cooperation-destination competitiveness model"* based on the integration of emerging theories from the corporate social responsibility and destination management field. The literature review provides destination managers with a basis for initiating stakeholders participation process related to sustainable management and marketing on the destination level which can be considered as important contribution whilst filling the gap in the existing literature. The model suggests the importance of nurturing partnership on the destination level which subsequently brings multitude of benefits due to tourism multiplier effect, not to exclude the contribution that the increased quality of the offer will have on the perceived image of a destination, which should be

further explored. The model is used as a basis for the establishment of an initial set of considerations for sustainable tourism product development aligned with the CSR 2.0 or transformative CSR. The impetus for the full implementation relays on the strength of stakeholder engagement and cooperation.

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An Optimal Generalized Autoregressive Conditional Heteroscedasticity Model for Forecasting the South African Inflation Volatility

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Abstract: In most cases, financial variables are explained by leptokurtic distribution and often fail the assumption of normal distribution. This paper sought to explore the robustness of GARCH–type models in forecasting inflation volatility using quarterly time series data spanning 2002 to 2014. The data was sourced from the South African Reserve Bank database. SAS version 9.3 was used to generate the results. The initial analyses of data confirmed non-linearity, hereroscedasticity and non-stationarity in the series. Differencing was imposed in a log transformed series to induce stationarity. Further findings confirmed that $AR\ (1)_IGARCH\ (1,1)$model suggested a high degree persistent in the conditional volatility of the series. However, the$AR\ (1)_EGARCH\ (2,1)$model was found to be more robust in forecasting volatility effects than the $AR\ (1)_IGARCH\ (1,1)$ and $AR\ (1)_GJR-GARCH\ (2,1)$models. This model confirmed that inflation rates in South Africa exhibits the stylised characteristics such as volatility clustering, leptokurtosis and asymmetry effects. These findings may be very useful to the industry and scholars who wish to apply models that capture heteroscedastic and non-linear errors. The findings may also benefit policy makers and may be referred to when embarking on strategies in-line with inflation rate.

Keywords: *GARCH_type models, inflation rates, volatility, heteroscedasticity*

1. Introduction

The most commonly used statistical model is regression analysis. The standard assumptions associated with this model are, however, violated when applied to time series data. The problem of autocorrelation is common in many time series data and this could be taken care of only when the correct order of lags is chosen. Literature suggests several methods to take care of autocorrelation errors in a model. This study uses the univariate models which have the capacity to take care of these problems. The proposed methods are further effective when applied to data which exhibit heteroscedastic and non-linear errors. These assumptions may in many practical applications not be realistic. Time series data is collected over certain intervals, short time or long time intervals causing the associated errors to be time dependent and correlated. It is thus important to use a model that incorporate the possibility of non-constant error variance known a heteroscedasticity model. In the main, this study presents generalized autoregressive conditional heteroscedasticity (GARCH) models introduced by Bollerslev (1986) and explores their predictive power in a series containing heteroscedastic errors. The methods are applied in inflation data of South Africa. Inflation measures the persistent and continuous rise in the general price levels in an economy. Webster (2000) describes inflation as the persistent increase in the level of consumer prices or persistent decline in the purchasing power of money. This is one economic factor that affects all other levels of the economy, and as a result it is the duty of every country to have effective control this sector. Suleman and Sarpong (2012) highlighted that most departments use inflation rates as basis of argument when debating on the state of the economy. Still on the same breadth, David (2001) described inflation as one of the main focus of economic policy in the entire world. Accurate future forecasts of inflation must be available so that they are incorporated in decisions affecting other sectors of the economy especially those associated with business transactions. The findings of this study would further aid in efficient allocation of economic resources in the country. This would also boost the rate of economic growth by encouraging savings to finance investments by both the government and households.

The empirical methods proposed uses the univariate time series analysis which captures both the present and past values of a unit series. The methods also have the ability to capture the volatility effects and can accommodate the dynamics of conditional heteroscedasticity and non-linearity. It is important to handle heteroscedasticity with appropriate non-constant variance models since it has effects on the accuracy of forecasts of confidence limits (Amos, 2010). Various models from the GARCH family would be explored and

the one that passes the diagnostic tests will be considered for further analyses. The empirical findings would be applicable to practitioners in the industry, policy makers in the government, businesses and the entire community of South Africa. Better planning would be done once the forecasts are known. Scholars would also benefit from this study as the results would contribute by either closing or bridging a gap in existing literature. The results would also serve as a basis for further studies to all interested parties.

There is a dearth of literature which reports on studies that explored the ability of GARCH type models to estimate inflation volatility in the context of South Africa. Most of the studies about inflation applied the Box-Jenkins autoregressive moving average (ARMA) models. There is a gap in literature in the context of South Africa on studies that modelled and forecasted inflation volatility with GARCH-type models. To the best of my knowledge, the only study that modelled and forested inflation volatility is one conducted by Amos (2010). This study applied $SARIMA\ (1,1,0)\ (0,1,1)$ and $GARCH\ (1,1)$ models on inflation rates of South Africa. Even though the two models were found to be good predictors of inflation rate, the $GARCH\ (1,1)$yielded least forecast errors and proved to be superior to the SARIMA model. This is a confirmation that the $GARCH\ (1,1)$ model is robust in producing forecasts of inflation rates and capturing variations in the data; the task which a SARIMA model failed to fulfil. Traditional time series models such as SARIMA assumes constant variances in the series. Conversely, most of the economic and financial series to a large extent exhibit non constant conditional variance (are heteroscedastic) and the analysis of such data is better handled with the novel GARCH-type models. Hence, the current study proposes and explores the GARCH-type framework to model and forecast inflation volatility.

A similar study to Amos (2010) was undertaken in Nigeria by Osarumwense and Waziri (2013). This study explored the theory of univariate non-linear time series and applied both ARIMA and GARCH models to non-stationary series. One of the conditions under which ARIMA can perform very well besides the linearity and constant variance is when the data used does not have unit root. The authors used these models under wrong conditions since they disregarded the most important assumptions. However, both models passed the battery of diagnostic tests and $GARCH\ (1,0)_ARIMA\ (1,0)$ were found to be sufficient to estimate Nigeria's inflation volatility for the periodJanuary 2012 to December 2013. Other empirical studies that considered the use of GARCH models in the area of inflation were carried out in Ghana such as those by Alnaa and Ahiakpor (2011) and Suleman and Sarpong (2012). These studies used both seasonal and non-seasonal models that assume constant variance just like Amos (2010) and disregarded the issue of conditional heteroscedasticity of the series in inflation data. To prove that the GARCH models are suitable for modelling the series with heteroscedastic errors, the comparative study by Awogbemi and Oluwaseyi (2011) favoured the GARCH model over the conventional ARIMA model. Similarly, Nortey et al. (2014) compared the performance of autoregressive conditional heteroscedasticity (ARCH), GARCH and exponential GARCH (EGARCH) models proposed by Nelson (1991) in modelling monthly rates of inflation in Ghana. The findings of this study showed that the $EGARCH\ (1,2)$ model with a mean equation of ARIMA $(3,1,2)_(0,0,0)12$ was appropriate formodelling Ghana's monthly rates of inflation.

One study that explored the varying volatility dynamics of inflation series was conducted by Perniaag et al. (2004) in Malaysia. Though this study did not consider variety of GARCH-types, a comparison was made between the GARCH and the exponential GARCH (EGARCH) models. The latter is not only suitable for capturing heteroscedastic errors; it is further used to capture the stochastic variations and asymmetries in the data. Though the diagnostic tests of these models provided significant results, EGARCH was chosen as the best model due to the nature of inflation data which is explained by highly irregular fluctuations. This shows that GARCH-type models have the ability to capture and reveal varying characteristics associated with time series data. Su (2010) studied financial volatility in Ghana using the GARCH and EGARCH models. Empirically, the results suggested EGARCH model as a good model of sample data than the ordinary GARCH model. EGARCH in this study modelled the volatility of Chinese stock returns better than the GARCH. The GARCH-type models are also useful time varying models in capturing the heteroscedastic errors in higher order levels such as the bivariate and multivariate time series. Several studies applied these models to study the effect of other financial and/or economic variables on inflation rates of different countries. Such studies include those by Igogo (2010) who in the first place used the $GARCH\ (1,1)$ model and realised such model violates the non-negativity condition. To remedy the problem, $EGARCH\ (1,1)$ model was employed and was found to be adequate measure of volatility in the series.

Likewise, Chong et al. (2002) applied the GARCH and the GARCH-in-the-mean type models in their study on exchange rate volatility. Just like the inflation rate, exchange rate share similar properties of conditional variance and non stationarity and as such same kind of time series models are applicable to such data sets. The findings of this study did not favour the null hypothesis of constant variances in the exchange rate implying the applicability of the GARCH-type models on the series. Consequently, the GARCH-in-the-mean was favoured over the GARCH model as it modelled heteroscedasticity of daily exchange rates better. Mokoma and Moroke (2015) also applied the multivariate ARCH approach to study exchange rate volatility. Three other financial variables such as the interest rates, inflation rates and GDP were used as determinants of exchange rate volatility in their study. The $ARCH$ (1) was chosen over the $ARCH$ (2) model since the former proved to reveal volatility of the series much better than the latter. Another study that applied GARCH models to inflation and inflation uncertainty relationship include one by Jehovanes (2007). It is clear according to evidence recorded from the literature reviewed that the GARCH models are suitable to model and forecast time series data with conditional variance. EGARCH model appears to be the most favourable model to use in modelling data with heteroscedastic errors. The exploration of these models will allow the researcher to suggest an optimal GARCH-type model from the list and use it to produce future forecasts of inflation rates in the context of South Africa.

2. Methodology

Data: The data used in this study comprises50 quarterly observations of the South African inflation expectation of the current year. These data covers the period from the third quarter of 2002 to the fourth quarter of 2014. The Consumer Price Index (CPI) is published by the Statistics South Africa and the South African Reserve Bank. Due to the nature of these data, the stochastic properties are expected to be non-stationary. The stationarity of the series is confirmed by assessing the first difference of the log transformed series. The desire is to have the stochastic properties of the series oscillating around the zero line. If this is not a case, the series is non-stationary. To convert the prices to returns, logarithmic transformations will be used. The logarithmic return is based upon the following mathematical definition;

$$r_t = ln\frac{P_t}{P_{t-1}}, \qquad [1]$$

Where $r_t$the return is for any time, t, P_t is the CPI value at time, t and P_{t-1} is the CPI value at time, $t-1$.The Statistical Analysis Software (SAS) version 9.3, registered to the SAS Institute Inc. Cary, NC, USA will be used for data analysis

Model identification and selection: Most econometric models, especially those utilising the ordinary least square method, are built on the assumption of constant variance. However, supporters of the efficient market hypothesis claim that financial data are random and as such makes any speculation based on past information fruitless (Frimpong and Oteng-Abayie, 2006). In essence, the basic model for estimating volatility using the ordinary least squares method is the naiverandom walk model which is analogous to the standard regression model assuming uncorrelated error given as;

$$Y_t = \mu + X'_t\beta + \varepsilon_t, \qquad [2]$$

Where μ is a mean value which is expected to be insignificantly different from zero, $\varepsilon_t = n_t$ and n_t are uncorrelated but have non-constant variance. Following Engle (1982), assume that the error term can be modeled as;

$$n_t = \sigma_t e_t, \qquad [3]$$

Where e_t are identically and independently distributed($i.i.d.$) random variables with mean 0 and variance 1, independent of past realizations of n_{t-i}, and;

$$\sigma_i^2 = \theta_0 + \theta_1 n_{t-1}^2 + \cdots + \theta_s n_{t-s}^2. \qquad [4]$$

Given all the information up to time $(t-1)$, the conditional variance of the n_t becomes;

$$Var_{t-1}(n_t) = E_{t-1}(n_t^2) = E\left(n_t^2 | n_{t-1,\dots}\right) = \sigma_t^2, \qquad [5]$$

and is related to the squares of past errors, and changes over time. Large errors through n_{t-i}^2gives rise to variance, which tends to be followed by another large error. This is a phenomenon of volatility clustering and is common in many financial time series (Wei, 2006).Equation [4] is simply the optimal forecast of n_t^2 if n_t^2 follows the following AR (s) model;

$$n_t^2 = \theta_0 + \theta_1 n_{t-1}^2 + \cdots + \theta_s n_{t-s}^2 + a_t, \qquad [6]$$

Where a_t is an $N(0, \sigma_a^2)$ white noise process. Engle (1982) as a result called the model of error term n_t with the variance specification given in [2] and [3] the ARCH model or ARCH(s) model. Equation [3] containing the property [4] is given as;

$$\sigma_t^2 = \theta_0 + \phi_1 \sigma_{t-1}^2 + \cdots + \phi_r \sigma_{t-r}^2 + \theta_1 n_{t-1}^2 + \theta_s n_{t-s}^2, \qquad [7]$$

is known as the GARCH model of order (r, s). Equation [7] is an ARMA form for the squared series a_t^2. As a result, a GARCH model can be regarded as an application of the ARMA idea to the squared series a_t^2(Tsay, 2005). Other GARCH-family models can be constructed from [7]. For instance, if the AR polynomial of the GARCH representation [7] has a unit root, then we have an integrated GARCH (IGARCH) model, i.e. $(1 - \alpha_1 - \cdots - \alpha_m) = 0$. From [4] and [7], it is evident that in specification of the ARCH, GARCH and IGARCH models, the effect of errors on conditional variance is symmetric, implying that positive error has the same effect as the negative error of the same magnitude (Wei, 2006). Moreover, because the σ_t^2 and n_t^2 are always non-negative, some restrictions on the coefficients θ_0, and $\phi_1$have to be imposed. In order to accommodate the symmetric relationship between financial variables, and their volatility changes and further to relax the restriction on the coefficients in the model, Nelson (1991) proposed that;

$$log(\sigma_t^2) = \gamma_t + \sum_{j-0}^{\infty} \psi_j g\left(a_{t-1-j}\right), \qquad [8]$$

Where $\psi_0 = 1$ and $a_t = n_t/\sigma_t$. Clarified by Nelson (1991), the function g is chosen to allow for symmetric changes depending on the sign of a_t in the conditional variance, $i.e.$, we may choose

$$g(a_t) = \delta a_t + \alpha(|a_t| - E|a_t|), \qquad [9]$$

When $0 < a_t < \infty$, $g(a_t)$ is linear in a_t with slope $\delta + \alpha$; when $-\infty < a_t < 0$, $g(a_t)$ is linear with slope $\delta - \alpha$. consequently, [8] allows the conditional variance to respond asymmetrically to the rises and falls of the process. Equation [8] implies that the sign of σ_t^2 will be positive regardless of the sign of the coefficients (Nelson, 1991). Therefore the model in which the evolution of the conditional variance satisfies [8] is regarded by Nelson as the EGARCH.

Other asymmetric GARCH models are Glosten et al. (1993) and Zakoian (1994), GARCH (GJR-GARCH) also well known as Threshold GARCH, (Quadratic GARCH (QGARCH) (Engle and Ng, 1993) and Power GARCH (PGARCH) (Ding et al.1993). In the QGARCH model, the lagged errors' centres are shifted from zero to some constant values. There is an extra slope coefficient for each lagged squared error in the GJR-GARCH model and the PGARCH model does not only consider the asymmetric effect; it also affords alternative approach to model the long memory property in the volatility. The identification of the GARCH model could be done by examining the autocorrelation function (ACF) or the partial autocorrelation function (PACF). These functions also serve as a basis of the order specification of the GARCH models. The pattern of the ACFs and PACFs is compared with the theoretical characteristics of the ACF and PACF used to identify the orders of $ARMA$ (p, q) process.

Prior to fitting the GARCH model, it is also important to detect the presence of ARCH disturbances in time series data as suggested by Weiss (1984). This is one of the most important requirements for using the

GARCH model. The author warned against overlooking the presence of heteroscedasticity as it does not only cause the ordinary least squares (OLS) estimates to be inefficient, but could also give rise to over-parameterised ARMA model. This paper uses the Lagrange multiplier (LM) test proposed by Engle (1982) to ascertain the presence of ARCH disturbances. To be specific, the study tests the hypothesis that the conditional variances of the series are constant. The LM test statistics are computed for various values of the q lags. This test follows a chi-square distribution. If the LM statistic is proven to be significant for higher lag orders, this is an indication that a GARCH model could parsimoniously predict the conditional error variance than a higher order ARCH. GARCH models have also been found to be effective when used on a series that exhibit non-linear effects (McLeod and Li, 1983). The presence of these effects may be checked with the Portmanteau Q-statistic. This statistic is based on a sample (ACF) of the squared OLS residuals for various lags and also follows a chi-square distribution. The desire is to obtain the significant observed probabilities associated with both the LM and the Q-statistics to be able to use the GARCH models. The selection of the most appropriate model for this study is done using Akaike Information Criterion(AIC) and Bayesian Information Criterion(BIC)proposed by Faraway and Chatfield (1998).These measures are intended to identify model which best fits the data. The proposed formulae are given as;

$$AIC = \frac{-2}{T} ln(likelihood) + \frac{2}{T} \times (number\ of\ parameters), \qquad [10]$$

Where the likelihood function is evaluated at a minimum likelihood estimates and T is defined as a sample size (Tsay, 2010). To cater for the parameter estimation method used by the GARCH model, AIC reduces to;

$$AIC = ln\left(\bar{\sigma}_{\ell}^{2}\right) + \frac{2\ell}{T}, \qquad [11]$$

Where $\bar{\sigma}_{\ell}^{2}$denotes the maximum likelihood estimate of σ_a^2 also known as the variance of a_t. Tsay (2005) explains the first term of this criterion as a measure of the goodness of fit of the model to the data. The second term is defined as the penalty function of the criterion. The author explained that this name is given to this criterion as it penalises the candidate model by the number of parameters used.
The proposed formula to represent the BIC is;

$$BIC = ln\left(\bar{\sigma}_{\ell}^{2}\right) + \frac{\ell ln(T)}{T}. \qquad [12]$$

The penalty for each parameter used is 2 for AIC and $ln(T)$ for BIC. On this basis, BIC has a tendency to select the model with the least lag more specifically when the sample size is moderate or large. In this study, the both the AIC and BIC are computed for $\ell = 0, \dots, P$, where P is a prespecified positive integer. The optimal model order is chosen by the number of model parameters, which minimizes either AIC or BIC.

GARCH Model estimation: Parameters of the GARCH models can better be estimated with the method of maximum likelihood. During the estimation process, initial values of both the squared returns and past conditional variances are needed. Bollerslev (1986) and Tsay (2002) suggested the use of conditional variances in [7] or consequently, the past sample variance of the returns for the past variances may be used as initial values. Equation [2] is also taken into consideration when estimating the parameters of the model. From this equation, the e_t are $i.i.d.N(0,1)$ and independent of past realisation of n_{t-1}. Equation [2] can alternatively be written in the following form to estimate the parameters;

$$Y_t = X'_t\beta + \frac{1}{1-\varphi_1 B - \cdots - \varphi_p B^p} n_t, \qquad [13]$$

or

$$n_t = \left(1 - \varphi_1 B - \cdots - \varphi_p B^p\right)(Y_t - X'_t\beta). \qquad [14]$$

Assuming $Y = (Y_1, \dots, Y_n), X = (X_1, \dots, X_n)$and Y_0andX_0 be some proper staring value required for computing n_t for $t = 1, \dots n$ from [14]. The conditional maximum likelihood estimates can be obtained by maximizing the conditional log-likelihood given by;

$$l = logf(\beta, \varphi, \phi, \theta | Y, X, Y_0, X_0) = \prod_{t=1}^{n} \left(\frac{1}{2\pi\sigma_t^2}\right)^{1/2} exp\left(-\frac{n_t^2}{2\sigma_t^2}\right), \qquad [15]$$

Where $\varphi = (\varphi_1, \dots, \varphi_p)$, $\phi = (\phi_1, \dots, \phi_r)$ and $\theta = (\theta_1, \dots, \theta_s)$.

Model diagnostics: Independence and normality of the residuals

The most recommended test for general departures from $i.i.d.$ Observations are the BDS test introduced by Broock, Dechert and Scheinkman (1987). Since a single time series data is used in this study, only the univariate version of the BDS test is considered. If a given time series is independent, then no deterministic model is necessary for this completely random process; otherwise, there must exist some relationship in the series to be addressed. The BDS test of independence is based on the correlation dimension. Broock et al. (1997) follow-up study in 1996 show that the first-order asymptotic distribution of the test statistic is independent of the estimation error provided that the parameters of the model under test can be estimated $\sqrt{n}$consistently.As a result, the BDS test can be used as a model selection tool and further as a specification test. The statistic has a standard normal distribution if the sample size is large enough. For small sample size, the distribution can be approximately obtained through simulation. The residuals of the model are rendered independent if the observed probabilities at for all embedding dimensions are in excess of 0.05 level of significance. The BDS test has stimulated quite a bulky literature and several applications have appeared in the finance area. See, Scheinkman and LeBaron (1989), Hsieh (1991) and Broock et al. (1991) for some of the application of the BDS test. To assess the normality of the residuals, the study uses a Kolmogorov-Smirnoff (KS) test. The desire is to obtain a symmetric approximated distribution of the residuals to conclude that the model fits the data. The KS test statistic must not be significant in order to render the model residuals normal.

Forecasting: The study further uses the model to find a forecast error variance that is heteroscedastic. The conditional variance of the GARCH model is obtained by taking the conditional expectation of the squared mean corrected returns (Ngailo, 2011). Firstly, note the optimal $l - step$ ahead forecast of Y_{t+1} given all information up to time t is conditional expectation$E_t(Y_{t+l})$. Wei (2006) suggested the associated $l - step$ ahead forecast error as;

$$(1 - \varphi_1 B - \cdots - \varphi_p B^p)\varepsilon_t = n_t. \qquad [16]$$

Consequently,

$$\varepsilon_t = \sum_{j=0}^{\infty} \psi_j B^j \; n_t, \text{and} \qquad [17]$$

$$\sum_{j=0}^{\infty} \psi_j B^j = \frac{1}{(1 - \varphi_1 B - \cdots - \varphi_p B^p)}. \qquad [18]$$

The $l - step$ ahead forecast error conditional variance thus becomes;

$$Var(\varepsilon_{t+1}) = (E_t[\varepsilon_{t+l} - E_t(\varepsilon_{t+l})]^2 = E_t\left[\sum_{j=0}^{l-l} \psi_j n_{t+l-j}\right]^2, \qquad [19]$$

The result of this equation is;

$$E_t\left[\sum_{j=0}^{l-l} \psi_j \sigma_{i+l-j} e_{l+i-j}\right]^2 = \sum_{j=0}^{l-l} \psi_l^2 \sigma_{l+i-j}^2, \qquad [20]$$

With $\sigma_{l+i-j}^2 = E_t(n_{t+l-j}^2$. As a result of these notations, Bollerslev (1986) suggested the following expression as a one-step ahead conditional forecast error heteroscedastic variance;

$$\hat{\sigma}^2 = \frac{1}{n}\sum_{i=1}^{n}(Y_t - X_t'\widehat{\beta})^2. \qquad [21]$$

Due to the difficulty in generating out-of-sample forecasts for GARCH models, or generating forecasts using non-linear models, only the in-sample-forecasts performances of the models will be examined. The measures of error forecast such as the mean absolute error (MAE), mean absolute percentage error (MAPE) and the mean square error (MSE) are used to evaluate the models for forecast ability. The model which generates least forecast error would be preferred most.

3. Data Analysis

Preliminary Analysis: This section presents the results of the 50quarterlyobservations on inflation rates from 2002 to 2014. The original plot of this series is not linear and not stationary at levels. Obviously the stochastic properties of the series are also not constant. This suggests that the proposed methods for this study will work well with the data. A perusal of the actual data also shows that from the third quarter of 2002 to the fourth quarter of 2003, inflation rates were very high in South Africa. A sudden dip as low as 4% followed in the first quarter of 2005 but gradually increased until the highest peak ever which is visible in the third and fourth quarters of 2008. These time-epochs constitute volatility in inflation rates.

Figure 1: Log transformed plot of the South African Inflation rates from Q3 2002 to Q4 2014

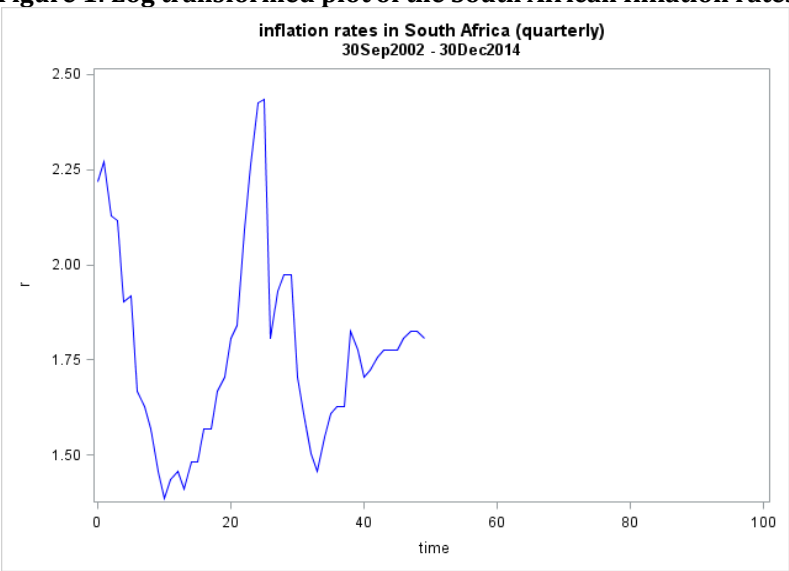
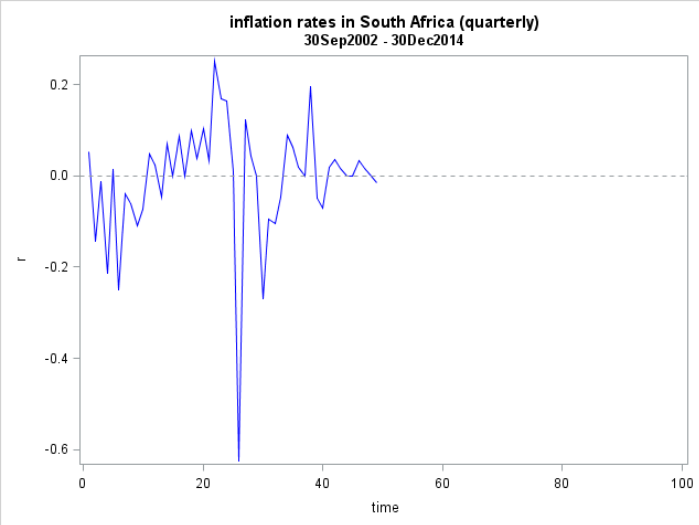


Figure 2 depicts a first differenced inflation series. Visible spikes in this figureare evidence of obvious volatility clustering in the series. This further shows the returns to be moderately stable overtime as results of transformation. The said behaviour of series returns appear to be in line with most financial theories and models which usually assume the prices to returns to be a stationary process. A further analysis is continued with a first differenced stationary series.

Figure 2: Log transformed-first differenced series of the South African Inflation rates



The results in Table 1 show that the AR (1) and the intercept are significant allowing the analysis to be done on the basis of this model as mean equation and GARCH (1, 1) as variance equation. Further preliminary analyses provide evidence that the variance changes across time(heteroscedastic) as strongly suggested by the LM statistic in Table 2. The observed probabilities associated with this test are all less than the 0.05 significance level. This is a good indication that a long memory period GARCH model is one approach to modelling time series with heteroscedastic errors than the ARCH model. Further note that the observed Q-statistics in Table 2 indicate that the residuals are non-linear, confirming that the GARCH model would be more appropriate to be used in parsimoniously predicting model volatility error variance than the ARCH model. By observation, the ACF and PACF plots of the residuals provide values which are within bounds of 95% confidence interval for Gaussian white noise. This strongly suggests that these plots are insignificant at 0.05 significance level thereby confirming that means and variance equations are correctly specified.

Table 1: AR (1) parameter estimates

Parameter Estimates					
Variable	**DF**	**Estimate**	**Standard Error**	**t Value**	**Approx Pr> |t|**
Intercept	1	6.3680	0.7951	8.01	<.0001
AR1	1	-0.8386	0.0752	-11.15	<.0001

Table 2: Tests for ARCH Disturbances Based on OLS Residuals

Order	Q	Pr > Q	LM	Pr > LM
1	20.4679	<.0001	18.5405	<.0001
2	21.9400	<.0001	22.9840	<.0001
3	22.1355	<.0001	23.0297	<.0001
4	23.1929	0.0001	23.4135	0.0001
5	24.4069	0.0002	23.4429	0.0003
6	25.3829	0.0003	23.5906	0.0006
7	25.6769	0.0006	23.6034	0.0013
8	25.6774	0.0012	23.6050	0.0027
9	25.7500	0.0022	23.6238	0.0049
10	25.8266	0.0040	23.6271	0.0087
11	25.8458	0.0068	23.6528	0.0143
12	25.8672	0.0112	23.6631	0.0226

The purpose of this study is explore the performance of GARCH-family models and use the selected model in estimating and forecasting inflation volatility in South Africa. To help decide on the GARCH-model best suited

for the study, the minimum information criteria are used. The selection of the best model was based on the minimum value of the AIC and SBC. The results (not shown here) revealed that the $AR\ (1)_IGARCH\ (1,1)$outperformed all the eight GARCH-type models. Both the AIC and the SBC were in favour of this model. The next selected models were the $GJR-GARCH\ (1,1)$ and EGARCH respectively. $QGARCH\ (1,1)$was the least favoured model.

Primary Analysis: Since the study sought to explore the ability of GARCH-type models in forecasting inflation volatility, both the symmetric and asymmetric GARCH-type models are considered. Ultimately, an optimal model with least forecast errors will be chosen. Note that the researcher included the mean and the AR effects when fitting the models. This was done to allow the output that contains both the mean and the variance equations. Bollerslev et al. (1992) suggested $GARCH\ (1,1)$ and $GARCH\ (2,1)$ as adequate for modelling volatilities even over long sample periods. Therefore these models are considered when generating the results. To eliminate biasedness, the models are once more checked for appropriates after including the first and second lags in the GARCH and the results are summarised in Table 3.

Table 3: Selection of most appropriate $GARCH\ (m,s)$

Model	SBC	AIC
IGARCH (1, 1)	**-50.6279**	**-58.1955**
IGARCH (2, 1)	-46.7362	-56.1953
GJR-GARCH (1, 1)	**-75.3161**	**-77.2079**
GJR-GARCH (2, 1)	-34.0793	-49.2139
EGARCH (1, 1)	-47.1374	-58.4883
EGARCH (2, 1)	**-52.3347**	**-65.5774**

$AR\ (1)_IGARCH\ (1,1)$, $AR\ (1)_GJR-GARCH\ (1,1)$ and $AR\ (1)_EGARCH\ (2,1)$are considered most appropriate among the $GARCH\ (m,s)$ models according to the SBC and AIC. Therefore, these models are appropriately fitted as follows;

$$\sigma_t^2 = \theta_0 + \phi_1\sigma_{t-1}^2 + (1-\phi_1)a_{t-1}^2, \qquad \text{for } 1 > \phi_1 > 0. \qquad [22]$$

Please take note that the unconditional variance of $r_t = a_t + \mu_t$, where $a_t = \sigma_t\epsilon_t$ is not defined, and this makes the $AR\ (1)_IGARCH\ (1,1)$model suspect for an excess returns series. The results of the estimated parameters are presented in Table 4.

Table 4:$AR\ (1)_IGARCH\ (1,1)$ Estimates

Variable	Estimate	Approx Pr> |t|
Mean equation		
Intercept	-0.0014	0.9025
AR1	0.2936	0.0532
Variance equation		
ARCH0	1.0537E-8	<.0001
ARCH1	0.3540	<.0001
GARCH1	0.6460	<.0001
Diagnostics		
Normality	7.9133 (0.0191)	
MSE	201.445	
Total R-Square	Undefined	
Unconditional variance	Undefined	

The mathematical form of this model is shown as;

$$\sigma_t^2 = 0.0000 + 0.354\sigma_{t-1}^2 + 0.646)a_{t-1}^2, \quad \text{with } 1 > \phi_1 > 0 \qquad [23]$$

$$r_t = -0.0014 + \mu_t$$

The GJR-GARCH model is a simple extension of GARCH with an additional term added to account for possible asymmetries (Knight and Satchell, 2003). AR (1)_GJR − GARCH (1, 1)could not be properly fitted. Only the intercept of this model was generated and therefore the $AR\ (1)_GJR - GARCH\ (2,1)$model was generated instead. An appropriate form of this model is given as;

$$\sigma_t^2 = \theta_0 + \phi_1\sigma_{t-1}^2 + \phi_2\sigma_{t-2}^2 + \theta_1 n_{t-1}^2 + \theta_2 n_{t-2}^2 + \gamma\lambda_{t-1}\varepsilon_{t-1}, \qquad [24]$$
$$\lambda_{t-1} = \begin{Bmatrix} 1 & if\ \varepsilon_{t-1} < 0 \\ 0 & if\ \varepsilon_{t-1} \geq 0 \end{Bmatrix}.$$

Estimates of parameters of $AR\ (1)_GJR - GARCH\ (2,1)$are summarized in Table 5.

Table 5: $AR\ (1)_GJR - GARCH\ (2,1)$parameter estimates

Variable	Estimate	Approx Pr> |t|
Mean equation		
Intercept	0.0037	0.9401
AR1	-0.3253	.
Variance equation		
TARCHA0	0.0180	0.5394
TARCHA1	-0.1773	.
TARCHB1	0.2448	0.5312
GJR-GARCH1	0.0108	.
GJR-GARCH2	0.005556	.
Diagnostics		
Normality	170.6632 (<0.0001)	
Total R-Square	Undefined	
Unconditional variance	0.0197	

Please note that no leverage effect for $AR\ (1)_GJR - GARCH\ (2,1)$model could be estimated according to Table 5. Mathematical form of this model is given as;

$$\sigma_t^2 = 0.0195 - 0.2371\sigma_{t-1}^2 + 0.2943\sigma_{t-2}^2 + 0.0943 n_{t-1}^2 + 0.00000 n_{t-2}^2. \qquad [25]$$

Table 6 gives results for the AR (1)_EGARCH (2, 1) model.

Table 6:AR (1)_EGARCH (2, 1) parameter estimates

Variable	Estimate	Approx Pr> |t|
Mean equation		
Intercept	-0.0035	0.7714
AR1	-0.0921	0.0523
Variance equation		
EARCH0	-11.6754	<.0001
EARCH1	0.5496	0.0475
EGARCH1	-1.0949	<.0001
EGARCH2	-0.0990	0.6399
THETA	-0.1513	0.4910
Diagnostics		
Normality	0.5692 (0.7523)	
Total R-Square	Undefined	
MSE	180.988	
Unconditional variance	Undefined	

Mathematically, AR (1)_EGARCH (2, 1) model is formulated as;

$$log\sigma_t^2 = -11.6754 + 0.5496\frac{|a_{t-1}|+(-0.1513)a_{t-1}}{\sigma_{t-1}} - 1.0949\sigma_{t-1}^2 - 0.0990\sigma_{t-1}^2. \qquad [26]$$

Presented next are the results of the BDS test of serial correlation for the first ten dimensions. A distance of two was used to generate the residuals. The BDS test is used to identify GARCH type that best models the conditional variance of inflation series for the chosen period. The BDS test for serial independence is a nonparametric test used also to detect non-linearity in the standardised residuals of the GARCH-type models selected in this study. This test is based on the null hypothesis that the data are pure white noise, that is, completely random (Broock et al., 1996). Panagiotidis (2002) suggested that once linear or non-linear structure in the data has been removed; the rest should be due to an unknown non-linear data generating process. The expectation is to have the residuals which follow a white noise process to conclude that the model is a true data generating process. The null hypothesis should not be rejected in order to render the model adequate for capturing all the relevant features of the data.

Table 7: BDS Test results for Independence

Embedding Dimension	AR (1)_IGARCH (1, 1)		AR (1)_GJR-GARCH (2, 1)		AR (1)_EGARCH (2, 1)	
	BDS	Pr > |BDS|	BDS	Pr > |BDS|	BDS	Pr > |BDS|
2	-1.2026	0.2291	-0.4556	0.6487	1.4176	0.1563
3	-1.0990	0.2718	-0.5670	0.5707	1.1812	0.2375
4	-1.0623	0.2881	-0.2788	0.7804	1.9385	0.0526
5	-1.4403	0.1498	-0.5974	0.5502	2.1562	0.0311
6	-0.5703	0.5685	-0.0611	0.9513	2.2649	0.0235
7	-1.1585	0.2467	-1.3315	0.1830	1.5941	0.1109
8	-0.7476	0.4547	-1.0572	0.2904	1.6405	0.1009
9	-0.4672	0.6404	-0.9181	0.3586	1.5224	0.1279
10	-0.6269	0.5307	-1.0109	0.3121	1.1228	0.2615

Results in Table 7 reveal that the residuals of the three models are not statistically significant at 0.01, 0.05, 0.1 levels of significance except for some in $AR\ (1)_EGARCH\ (2,1)$model at dimensions 4, 5 and 6. Therefore, the three models satisfy the assumption of randomness of the residuals according to Broock et al. (1996).

Evaluating forecasting ability: This section evaluates the inflation forecast ability by the three models. Generated by SAS are the plots of conditional variances for the selected period and the next 12 months. The associated forecast error measure such as the MAPE, MAE and the MSE are given to help decide on an optimal model. The model with a least forecast error measure is considered robust. The conditional standard deviations are summarised as Figures 3 to 5 and associated measures in Table 8.

Figure 3: $AR\ (1)_IGARCH\ (1,1)$Conditional standard deviations

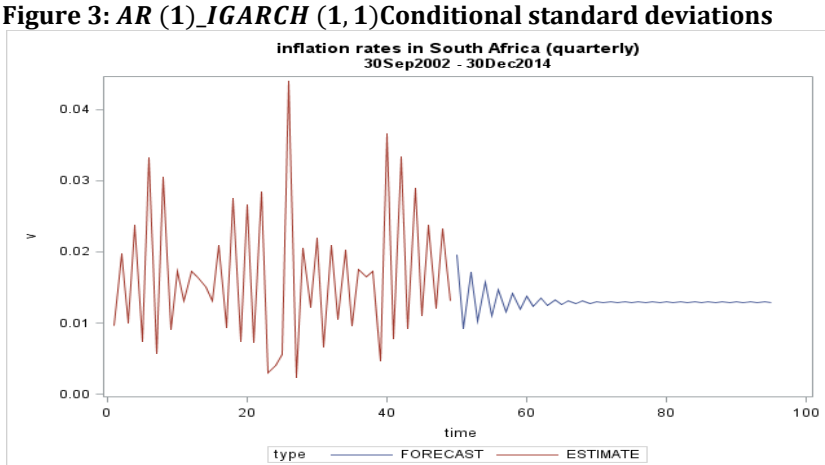


Figure 4 : $AR\ (1)_EGARCH\ (2,1)$ Conditional standard deviations

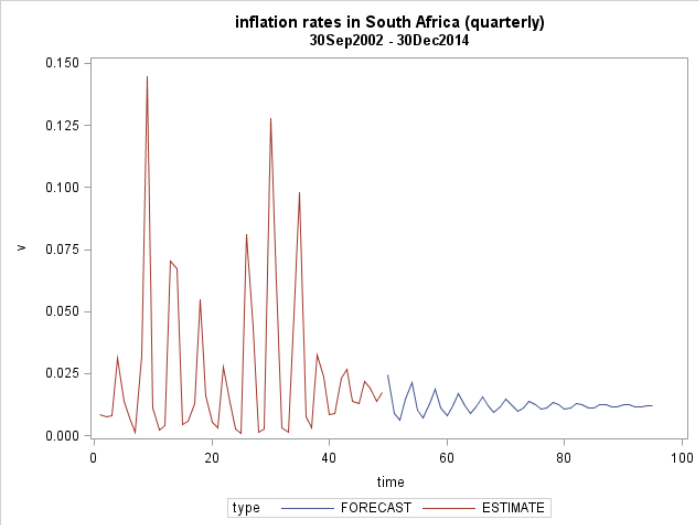


Figure 5: $AR\ (1)_GJR-GARCH\ (2,1)$ Conditional standard deviations

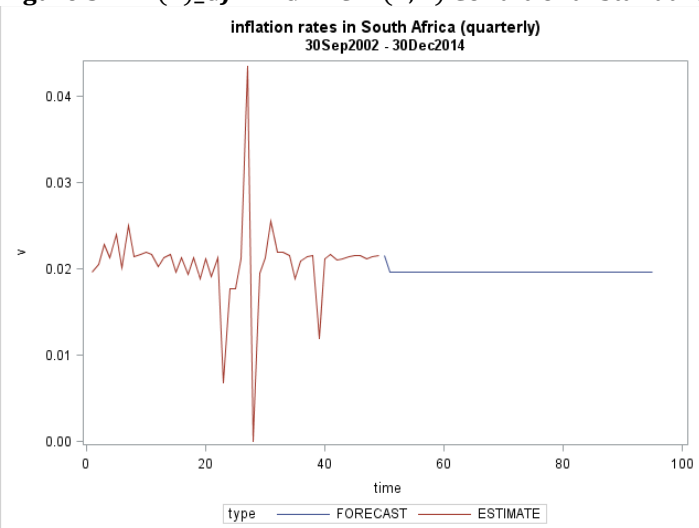


Figure 3 to 5 reveal the forecasts of inflation volatility in the next year, 2015. It is apparent that the error terms in inflation series have not been constant over the years and this is explained well by the spikes visible in the figures. This is also an indication that the South African inflation series is volatile and this is captured well by the three models. However, the forecasts show that in future, inflation may be stable and this is indicative of almost smoothed line depicted in the figures. Both the $AR\ (1)_IGARCH\ (1,1)$and$AR\ (1)_GJRGARCH\ (2,1)$appear not to be good forecasters of conditional variance.

Table 8: Forecast error measures

Measure	Model		
	IGARCH (1, 1)	EGARCH (2, 1)	GJR-GARCH (2, 1)
MAE	0.0953	0.0814	0.0823
MAPE	146.818	102.2620	111.8973
MSE	0.0201	0.0177	0.0190
Model ranking	3	1	2

The error measures choose the asymmetric $AR\ (1)_EGARCH\ (2,1)$ model as one which best models conditional variance. More evidence can be gathered on the associated Figure 4 which shows the forecasted volatility by this model. The $AR\ (1)_IGARCH\ (1,1)$model was least ranked by the forecast measures. These findings confirm those reported by many studies on this subject. Therefore, EGARCH is an optimal model among other GARCH-type models.

Figure 6: Forecasting ability of the $AR\ (1)_EGARCH\ (2,1)$ model

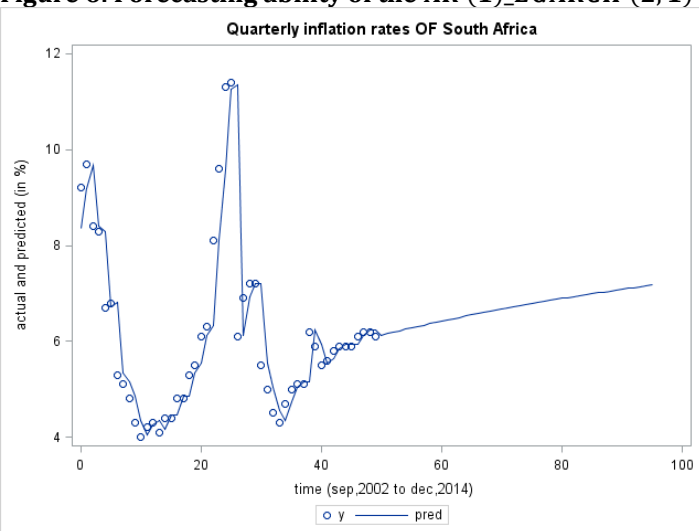


Figure 6 confirms that the $AR\ (1)_EGARCH\ (2,1)$ model has the ability to capture the volatility present in the data set. The predicted values are shown to be moving along with the original series. As shown in the figure, inflation volatility forecasts by the model for the period January 2015 to December 2015 will decrease but at a very low pace. The results in Figure 6 confirm the forecasts by the three models in Figure 3 to 5.

4. Results and Discussion

Parameter estimates of the $AR\ (1)_IGARCH\ (1,1)$for the variance equation are robust as seen in Table 4. The sum of the ARCH and GARCH coefficients is very close to unity, and this implies that volatility shocks are pretty persistent. This is an indication of a covariance stationary model with a high degree of persistence and long memory in the conditional variance. Due to this high rate, the response function to shock is likely to die slowly. As a result, new shocks may have influence in returns for a longer period. This is another one of the conditions of the GARCH-type model application. Evidence about parameter estimates robustness can be gathered on$p-values$ which are less thanthe 0.05, 0.01 and0.1 levels of significance. The significant parameter estimates of the AR $(1,1)$_IGARCH model further proofs that coefficients of the conditional variance equation have a strong support for the presence of ARCH and GARCH effects. The AR term in the mean equation of this model is significant at 0.1 level of significance. The results in Table 4 also suggest that the intercept (also known as the mean) of the return series is not significantly different from zero. This condition is consistent with the random walk hypothesis. The leverage effect in the mean equation exceeds zero and is significant at 0.1 level of significant. This is in support of the assumption that negative and positive shocks have different impact on the volatility quarterly returns.

The variance equation parameters of the $AR\ (1)_EGARCH\ (2,1)$model in Table 6are significant except for one associated with EGARCH2. The leverage effect is calculated as $-0.1513$and is negative and insignificant as expected.The asymmetric (leverage) effect captured by the negative parameter estimate is less than zero suggesting absence of leverage effect. Parameter estimates of the mean equation for the AR (1)_EGARCH $(2,1)$model are insignificant.Parameter estimates of the$AR\ (1)$_GJR $-$ GARCH $(2,1)$ model in Table 5both for the mean and variance equations seem to be unstable and insignificant. Due to inconclusive results exhibited by this model, not much can be deliberated. The mean values in the mean equations of the three models are less than zero and insignificant, implying that these models detect low volatility in inflation

series. This also explains why the spikes in Figures 3 to 6 are gradually levelling off. This may be good news to the country as many sectors affected by this series may be stabilised. Volatility has disadvantages such as the potential to unsettle investors and undermining the role of exports in growth strategy of economies. The findings of this study provide a good motivation for the implementation of fixed inflation rates in future and consequently consumer prices may be lowered and purchasing power of money may be improved. This will enable more people to start saving for the future since they will have more money left in their pockets.

The diagnostic tests of the three models provide significant observed probabilities of the normality tests for the AR (1)_GJR $-$ GARCH $(2,1)$andAR (1)_IGARCH $(1,1)$models. The assumption of normality is violated for these models but catered for by the AR (1)_EGARCH $(2,1)$model. The normality test in the first two models indicates that the conditional normal distribution may not fully explain the leptokurtosis in inflation rates but is fully supported by the $AR\ (1)_EGARCH\ (2,1)$model (Bollerslev, 1987). The residuals of the three models are also independent according to the BDS test summarised in Table 8 for all embedding dimensions implying that the models are correctly specified. The residuals of the three models also follow a white noise process, implying these models are a true data generating process. Further diagnostics tests provide the results for the forecast error measures which are all in favour of the $AR\ (1)_EGARCH\ (2,1)$model. The diagnostic tests and the absence of leverage or asymmetric effects confirm that the AR (1)_EGARCH $(2,1)$model is best suited to measure the volatility of the inflation series. The findings are in accordance with those reported by different studies. EGARCH model outperforms other GARCH models as it models and forecasts volatility better than other GARCH-type models.

5. Conclusion

This paper explored the robustness of GARCH-type models in estimating the volatility of inflation rates in South Africa. Volatility clustering, leptokurtosis and leverage effects were examined for the series for the period 2002 September to December 2014. Preliminary analyses proved that the data has heteroscedastic and non-linear errors. Stationarity of the series was achieved after first differencing the log transformed data. About nine GARCH-type models were compared and only three were selected according to the AIC and SBC. The maximum likelihood estimation method was used to estimate parameters of the selected models and it was discovered that $AR\ (1)_GJR - GARCH\ (2,1)$was the least robust model in terms of the parameter estimates and other diagnostic tests. Though the sum of ARCH and GARCH effects in the $AR\ (1)_IGARCH\ (1,1)$model were in accordance with theory and significant compared to the $AR\ (1)_EGARCH\ (2,1)$model, the former was ranked second by the minimum information criteria. The intercepts of the three models were very small (less than zero) and insignificant implying that volatility effects captured by these models in inflation rates are very low.The leverage effect in the $AR\ (1)_EGARCH\ (2,1)$model suggested absence of leverage effect in the series. Overall, the AR (1)_EGARCH $(2,1)$model was found to be more appropriate for modelling the series with heteroscedastic errors. This model proved that inflation rates in South Africa exhibits the stylised characteristics such as volatility clustering, leptokurtosis and asymmetry effects.

The parameter estimates of the $AR\ (1)_IGARCH\ (1,1)$model suggested a high degree persistent in the conditional volatility of the series. This evidence of high volatility persistence and long memory in this model is suggestive of relevant IGARCH models probably with ARMA effects. Other asymmetric GARCH models may be used for further studies and the results may be compared with those obtained in this study. This may aid in identifying the most optimal model among the family of asymmetric heteroscedastic models that are more appropriate for inflation rates. The forecasts obtained for inflation rates obtained through the $AR\ (1)_EGARCH\ (2,1)$ model could be of vast help to decision makers when formulating strategies concerning this sector. The information obtained would go a long way in arriving at decisions on issues such as augmentation of consumer prices in future. Decision makers could also be able to, from time to time well in advance, benchmark with other countries and prepare for the future.

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