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4th 2018 Academy of Business and Emerging Markets (ABEM) Conference

Barriers to Inclusive Growth Strategies in Developing Countries and Emerging Markets

August 1-3, 2018
Manila, Philippines

ABEM 2018 Conference Proceedings

Editors
Dr. Luis Camacho, SUNY Empire State College, USA
Dr. Satyendra Singh, University of Winnipeg, Canada

Published by
Academy of Business and Emerging Markets (ABEM)
Edinburgh House, Room 708, 99 Wellington Crescent
Winnipeg R3M 0A2, Canada

https://www.abem.ca
info@abem.ca

Library and Archives Canada
550 Boul del la Cite
Gatineau, QC K1A 0N4
Canada

Education

ISBN 978-0-9937342-3-6

Typeset in Canada
2018

A NOTE FROM ABEM CONFERENCE PROCEEDINGS EDITORS

Welcome to Manila, the capital of the Philippines!

It is an honor to welcome you to the 2018 Academy of Business and Emerging Markets (ABEM) Conference to be held at the H2O Hotel in Manila, a city that mixes Spanish colonial architecture with modern skyscrapers and the country's principal center for commerce, banking, finance and retailing. The Philippines is an archipelago with more than seven thousand islands located between the Philippine Sea and the South China Sea at the eastern edge of Asia. It is also one of the emerging markets and primarily considered a newly industrialized country, an ideal site to hold the 4th 2018 ABEM conference. It is our pleasure to edit the proceedings of the Conference taking place during August 1-3, 2018 in Manila, the Philippines.

The theme for this year's conference "Inclusive Growth in Developing Countries and Emerging Markets" will gather an ample group of scholars from different countries, enriching the discussions and strategies that support emerging markets and developing countries growth. ABEM 2018 will continue to impulse the debate around its three main tracks: Business, Government, and Community.

We received 66 submissions from 26 countries, making it true to its mission. In fact, we have representations from almost all the continents. Each submission was peer-reviewed in a double-blind review process by at least two professors who were experts in the area of the submission. Finally, 27 submissions from 16 countries were selected for presentations. The proceedings contain 18 abstracts and 9 papers that were presented at the Conference.

We sincerely appreciate and thank our sponsors for their valuable support for our annual conference and reviewers, authors, speakers, keynote speakers, organizers, student assistants, contributors and conference participants; without their help, we would not have been able to edit the proceedings.

As always, we will deposit the proceedings for indexing to Library and Archive, Government of Canada. We look forward to working with you and sharing our experiences and knowledge at this year's conference and hope to see you again at our annual conferences in the years to come!

Sincerely,

Dr. Luis Camacho
Editor, 4th ABEM 2018 Conference proceedings
Assistant Professor, Business Management
SUNY Empire State College, New York
USA

Dr. Satyendra Singh
Editor, 4th ABEM 2018 Conference proceedings
Professor, Marketing and International Business
University of Winnipeg
CANADA

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Dr. Xiaozheng Zhang, Nottingham Trent University, UK

LIST OF CONTRIBUTORS

Ben, Katoka, Hanyang University Institute for Euro-African Studies, South Korea
Beno, Michal, VSM/CITY University of Seattle, Slovakia
Bermudez-Mesén, Ligia, Open State University, Costa Rica
Booyens, Marno, University of Johannesburg, South Africa
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Suraiya, Kunal, Indian Institute of Management Calcutta, India
Talib, Ameen, Singapore University of Social Sciences, Singapore
Tutuba, Nicholaus, Mzumbe University School of Business. Tanzania
Wulandari, Nuri, Indonesia Banking School, Indonesia

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ABSTRACTS

BARRIERS TO THE INCLUSIVE GROWTH IN AFRICA AS A DEVELOPING AND EMERGING CONTINENT

Marius Potgieter, North-West University, South Africa

Africa is second largest continent, sadly to say, not the second most developed due to numerous barriers in its path of development and emergence, leaving Africa as one of the world's most unequal regions. The sectors posing potential to transform Africa are agriculture and industry. Also needed are critical policy interventions addressing specifically income inequality, women's participation, and gainful employment for young Africans. One major barrier to inclusive growth in Africa is its structural transformation which is still at an early stage, resulting in urban migrants being absorbed into informal activities that offer little prospect of advancement. Africa has to improve its production capabilities and the productivity of its human and physical capital. 'The High Five' key operational objectives for developing Africa as an emerging force are: feeding Africa; powering and lighting; regional integration; industrializing Africa, and, improving the quality of life of Africans. The year 2015 marked the conclusion of the Millennium Developmental Goals and the adoption of a new global development agenda, Sustainable Development Goal 2030, calling for government-private sector partnerships and research to turn the goals into reality.

GOVERNANCE IN DEVELOPING COUNTRIES AND EMERGING MARKETS

Sungsoo Kim, Hanyang University, South Korea

Governments in developing countries and emerging markets often struggle to increase economic growth while maintaining social and cultural standards due to the conflicting economic and political governance. Although economic growth can be achieved through activities (e.g. capital investment in manufacturing industry, human resource development, entrepreneurship and management skills development, technical and vocational skills, technology implementation, security and social development, corruption reduction and the promotion of public private sectors), government interventions in these activities may not necessarily directly support the economic excellence of developing countries and emerging markets. This study focuses on the importance of expanding human capital by providing education, health and security for economic development, followed by a plan for the development of infrastructure, urban and rural areas. Good governance is necessary to institutionalize human and social capital. Global focus should be on developing human and social capital in the developing countries and emerging markets.

CULTURE AND ECONOMIC GROWTH: THE ROLE OF PARENTING

Greg Clydesdale, Lincoln University, New Zealand

Ethnic groups vary in their experience of economic growth. To understand this problem, this paper focuses on culture, with a focus on parenting behaviors. It begins with an examination of culture and economic systems. A key observation is that, after the enlightenment, Western nations took the lead in developing a knowledge-based economy. As a consequence, Westerners excelled in wealth creation while other cultures remained in relative poverty. This has implications for parental practice and child development. While a resource-based economy may require a child to develop motor skills, in a knowledge economy, the emphasis is more on cognitive skills. The role of parents in developing human capital is examined. It is noted that a society's resource base strongly influences the behaviors, capabilities and values passed on by parents. Parental behavior is culturally determined, yet academics have been reluctant to examine the role of culture in poverty, believing this is akin to blaming the victim. They instead argue that poverty undermines parental performance. This paper argues that child academic outcomes (and hence human capital value) can be enhanced by modifying parental behavior through parental programs. The situation for emerging economies is complex. Emerging economies are not yet fully developed 'knowledge economies'. Replacing existing parental/educational practices may result in over-education and unemployment. However, without changes, transferring Western

production methods to emerging economies may fail because of differences in human capital. This calls for a deeper understanding of human capital and consideration of structure, time discipline, self-control, and cognitive skills.

THE CHALLENGES OF BUSINESS ANGEL INVESTING IN EMERGING MARKETS

William Scheela, Bemidji State University, USA

The purpose of the study is to analyze the challenges facing business angel financing in emerging markets by integrating four published papers that report on field studies of 80 business angels who invest in start-ups in four emerging Southeast Asian countries. We use institutional theory to better understand the challenges of business angel investing in emerging countries typically lacking strong institutions, which can be described, in most cases, as institutional voids. Our research question is: what are the barriers facing business angels when investing in institutional voids, which makes it more challenging to invest in and develop seed- and early-stage entrepreneurial firms? We find that the major barriers are inexperienced entrepreneurs and business angels and a lack of government leadership and support for angel investing. In spite of operating in significant institutional voids business angels report positive investment returns. We contribute to both institutional theory and business angel literatures.

DO EMERGING MARKET FIRMS BENEFIT FROM ACQUISITIONS? A MARKETING PERSPECTIVE

Mahabubur Rahman, Rennes School of Business, Rennes, France

Emerging country firms have been increasingly engaging in cross-border mergers and acquisitions, and these acquirers predominantly acquire firms from developed countries. The motivation for such acquisitions is to achieve market access but also to benefit from transfers of skills and knowledge. The performance of such acquisitions has started to receive some research attention, particularly financial performance, but the transfers to other areas such as marketing capability have not yet been explored. This study addresses this gap by studying the experience of acquirers from emerging countries which acquired firms from developed countries. This study uses two-stage data envelopment analysis (DEA) and Tobit regression to investigate the impact of these acquisitions on the marketing capability and overall firm performance of the acquiring firms. The results show that marketing capability of the sample firms improved in the post-merger years and this improvement can be partly attributed to the acquisition itself. Furthermore, the findings show that overall firm performance of the sample firms also improved following acquisitions. However, the improved firm performance is not because of the acquisitions, but a continuation of better performance from the pre-merger years

DEMOGRAPHIC DIFFERENCES IN HIGHER EDUCATION INSTITUTIONS (HEI): A COMPARISON BETWEEN A SELECTION OF SOUTHERN AFRICAN AND INDONESIAN STUDENTS BASED ON STUDENT-CUSTOMER ORIENTATION QUESTIONNAIRE (SCOQ)

Johan W. de Jager, Tshwane University of Technology, South Africa
Nuri Wulandari, Indonesia Banking School, Indonesia

Various authors researched the importance of the marketing concept related to higher education. Most of them contend that customer orientation enhances business performance regardless of the industry they are operating in or the size of the organization. Higher education institutions are regarded as businesses such as various other service related organizations and should consequently embrace a customer-orientated approach within the marketing concept if they want to succeed. This came in the light that higher education is operating in a highly competitive and dynamic environment. The challenge is more intense given the host of comparable alternatives. It is contended that institutions of higher education world-wide, have to compete for funds from both public and private sectors as well as for potential students. Because only a few institutions of higher education can claim that they differentiate based on historical heritage or sustainability, and academic excellence or value-creation

also no longer entail any differential advantage, institutions of higher education increasingly position themselves as customer-oriented academic institutions, stressing flexibility and convenience of attendance to attract prospective students. This study aims to investigate the different categories of educational experience and to what extent students expect higher education institutions to be customer orientated. A comparison is made between gender and between Indonesian and South African students.

EXPLORING SPILLOVER EFFECTS OF BRAND TRANSGRESSIONS: IMPACT OF BRAND FAILURES ON BRAND PORTFOLIO

Manpreet Singh Mokha, Indian Institute of Management, Calcutta
Kunal Suraiya, Indian Institute of Management, Calcutta
Krishanu Rakshit, Indian Institute of Management, Calcutta

Prior research has extensively explored the impact of brand transgressions and the impact it has on the brand as well as the potential impact of brand extensions. However, little research exists on the impact of the failure of a single product on the consumer perception towards the overall brand or, other products under the same brand. This research attempts to explore the impact of brand transgressions and product failures on consumers‟ decision making for purchasing an offering, which is not considered to be mainstay of the brand. Moreover, we find that the effect is impacted by the actions that are taken by the brand to differentiate the new product from the product that was plagued with the failure.

THE EFFECTS OF HUNGER MARKETING ON SPECIAL EVENT DINNER

Jim Shih-Chiao Chin, Nanya Institute of Technology, Taiwan
Lily Shui-Lien Chen, Tamkang University, Taiwan
Yung-Hsin Lee, CTBC Business School, Taiwan
Ling-Yi Chen, Tamkang University, Taiwan

The application of *Hunger Marketing* strategy for promoting special event dinner is common in today’s restaurant business. Scarcity accelerates decision makers’ perceived perishability of an offer, limiting their freedom to delay the purchase decision and creating a sense of urgency for an immediate action. Xiaomi and Apple, prosperous enterprises, also believe in this effect and thus achieve a great success. With several scholars’ theoretical studies and applications in the society, the marketing strategy of *perceived scarcity* is the motivation for this study. The main objective of this study is to identify effective variables of hunger marketing strategy to enhance restaurant business promotions at special events. Although suppliers may have good understanding of the consumers’ psychology, persuasion knowledge and perceived scarcity concerning with consumers’ perceived value, attitude and purchase intention need to be investigated. Specifically, the study investigates how perceived scarcity affects consumers’ perceived value and thus influences attitude and purchase intention in the context of Taiwan.

PERFORMANCE IN SERVICE SECTOR SUBSIDIARIES: IS IT ABOUT WHO YOU KNOW OR WHAT YOU KNOW?

Sven Dahms, James Cook University Singapore, Singapore

The purpose of the study is to investigate the performance determinants of foreign-owned service sector subsidiaries located in Taiwan. We focus in particular on the dimensions of intra- and inter-organizational networks and subsidiary competencies. Data has been collected via a large-scale questionnaire survey of managing directors and analyzed using structured equation modelling and fuzzy set qualitative comparative analysis techniques. This research provides more fine-grained insights in the nature and impact of competencies and networks than previous studies in distinguishing between sub-dimensions of business and non-business networks as well as primary and supportive subsidiary competencies. While our results confirm the importance of intra-organizational network strength as a key determinant of for subsidiary performance, we also show that combinations of inter-organizational network strength and competencies can determine performance in a number of subsidiaries in our sample.

GENDER AND ENTREPRENEURSHIP IN ETHIOPIA.

Ven Sriram, University of Baltimore, USA
Tigineh Mersha, University of Baltimore, USA

Among the UN's Sustainable Development Goals, Goal 5 explicitly recognizes the need for gender equality, including women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life. However, this goal is very much a work in progress in the economic sphere in many parts of the world. In Africa, the rate of increase of new business start-ups by female entrepreneurs' trails that of men and gender-based barriers inhibit African women from participating fully in economic activities. The Commission for Africa Report states that women head one in five households; they are responsible for 80 per cent of agricultural production and all of the household production. Yet they are systematically excluded from institutions and have fewer opportunities to generate income. The report recommends promoting small enterprises with a particular focus on youth and women as a critical development objective for Africa. Since many institutional barriers prevent almost one half of the population from being full-participants in the economy in many nations, it is imperative that these barriers be better understood so that they can be reduced, if not eliminated entirely. However, there is a paucity of research on women entrepreneurs and as a result, evidence-based solutions to eliminate these barriers are still quite limited. We propose to compare the personality traits and motivations of men and women entrepreneurs in Ethiopia with a view to isolating the unique hurdles encountered by female entrepreneurs. We also examine the success of enterprises started/operated by women versus those by men. Based on our research, we offer recommendations for how the skills and competencies of Ethiopian women entrepreneurs can be enhanced through targeted training programmes that will enable them to achieve greater success. Also, this will help them come closer to achieving the gender equality goals of the UN and help grow the nation's economy. We are hopeful that the implications of this study's findings will help not only Ethiopian and African women entrepreneurs, but female entrepreneurs in other emerging markets as well.

ONE NATION, ONE TAX, ONE MARKET IN INDIA: AN ANALYSIS

Neelam Chawla, Guru Govind Singh University, India
Promod Kumar Nanda, Chartered Accountant, India
Basanta Kumar, Freelance Academician and Advocate, India

The paper aims to review the need for the introduction of a single tax system in the form of Goods and Services Tax (GST) in India that has been operational since 2017, and analyses the implementation issues, and studies its impact on the consumers, business and the global economy. India is promising for *Make in India* in the race of global competitiveness. After prolonged discussions and debate for a couple of years, the Indian government has adopted the GST system. The GST embodied on the principle of *one nation, one tax, and one market* is aimed at unifying the country's $2.4 trillion economy and 1.3 billion people into a common market. It is a single tax system of goods and services introduced with the objectives of expanding the tax base, reducing cascading and double taxation and harmonizing the indirect tax regime in India. The new tax regime is broadly expected to lower overall tax burden on goods and services, to develop the common national market for goods and services by eliminating unhealthy and unfair practices and to improve the competitiveness of domestic industry, thereby improving the GDP. As such, it is supposed to be very beneficial to business and consumers. With regards to the operation of the new system, it provides some breathing space for companies to fine-tune their IT systems for reporting requirements under the GST. While the government seems confident of being GST-ready smooth sailing, the industry is still preparing itself to meet several implementation challenges. Amongst the several transition issues and implementation challenges being faced by the industry are: treatment of closing inventory, adherence to anti-profiteering provisions, modification of IT systems to make them GST-compliant, intra-branch supply of services, and determining the place of supply and location of the recipient. But how is consumers' life, the end

user's pocket is being impacted post GST, needs a look. Besides, when GST systems in various forms are operational in more than 130 countries, Indian move to GST system seems positive ramification at least in the international trade. The study is based on secondary data sources and field experience. The expected outcome of the analysis would bring to the attention of all the stakeholders, particularly the policy makers and the government to bring suitable amendment(s) to the new system, if necessary, and build supportive infrastructure to boost the economic growth.

SUSTAINABILITY OF FOOD VENDING MACHINES IN SINGAPORE

Lim Wan Qin, Singapore University of Social Sciences, Singapore
Ameen Talib, Singapore University of Social Sciences, Singapore

Food vending machines in Singapore are viewed as an initiative targeted at addressing manpower shortages in the food and beverage industry and is reshaping purchasing experience of consumers. Given the extensive research emphasized on interpersonal purchases and self-serving technology, a myriad of explorations pertaining to the interaction between consumers and food vending machines needs to be conducted. The objective of this research is to determine the sustainability of food vending machines in Singapore. Sustainability here is attributed to Singapore's acceptance and satisfaction of food vending machines. Particularly, this research describes the results of a technology acceptance model and critical incident study based on a simple random sample of usable incidents involving food vending machines through online and face-to-face surveys. The results of this study suggest that while some factors affecting the acceptance of food vending machines are aligned with the technology acceptance model, such factors appear to be of less significance. The taste and quality of food are more significant contributors towards consumers' satisfactory/dissatisfactory experiences.

HIGH QUALITY CASH MANAGEMENT AS A TOOL OF REMOVING BARRIERS TO INCLUSIVE ECONOMIC GROWTH

Darina Saxunova, Comenius University in Bratislava, Slovakia

Inclusive growth remains the exception rather than the rule all over the world. Local communities may have better opportunities to address economic problems if both employers and workers explore the linkage between economic inclusion and growth. Big corporations, small and medium enterprises (SMEs), governments and civic institutions should collaborate together with the aim of removing barriers that are hindering inclusive growth. Elaborated inclusive growth strategies should be tailored to regions or communities. Sustainable profitable businesses operating in the areas of innovative industries and tradable sectors enable workers to get well-paid jobs and better prospects. Economic growth generates the wealth and especially tax revenues, essential for supporting public goods financed by the municipal governments. These strategies are enabled by capital resources and support or expand profitable investments in regions. Municipal governments finance their activities from the state or municipal budgets, once filled with tax revenues. How tax revenues will be beneficial to the communities depends on the efficiency of collecting taxes from prosperous businesses. Companies must be disciplined, forced by legislation, and technologically progress to report earnings and pay taxes. The main objective of the study is to investigate challenges posed by the cash economy that can facilitate tax evasions and tax crime. Cash is fungible and untraceable requiring high-quality cash management in public finances. The critical analysis and comparison will be used to evaluate legislation measurement, government policies or efficient technology solutions that were implemented to improve cash management in developed and developing countries worldwide.

KOREAN WAVE IN TANZANIA: HOW DOES IT AFFECT KOREA IMAGE, PURCHASING TENDENCY AND TOURISM?

Lee Chung-Hee, Hanyang University Institute for Euro-African Studies, South Korea
Ben Katoka, Hanyang University Institute for Euro-African Studies, South Korea
Shim Seung-Woo, Hanyang University Institute for Euro-African Studies, South Korea
Shim Sung-Eun, Hanyang University Institute for Euro-African Studies, South Korea
Kim Sungmin, Hanyang University, Department of Tourism, South Korea

In recent years, Korea has increasingly recognized the importance of culture as an essential diplomatic tool. Cultural diplomacy—which is a sub-component of public diplomacy—is primarily about influencing the attitudes and opinions of peoples in other nations through various aspects of culture—i.e., art, music, films, information, ideas. Opinion, for example, refers to how people perceive another country or how they evaluate products originating from that country. Attitude, on the other hand, may consist in how country-image influences the buying decisions of peoples in other nations. To evaluate these propositions, the current study uses a survey conducted in 2017 on the spread of Korean Popular Culture—Korean Wave or Hallyu—in Tanzania. It addresses two core questions: (1) whether and how the Korean popular culture is correlated with Tanzanian people's opinion about Korea; and (2) How Tanzanian people's opinion about Korea shapes their decisions of purchasing Korean products, as well as their willingness to travel to Korea. Results suggest that the spread of Korean popular culture would improve Korea image, which in turn would influence Tanzanians' purchase decisions of Korean products, as well as their willingness to travel to Korea. With these results, the study offers some lessons that could be of interest for Korean public diplomacy in Africa.

ETHICAL LEADERSHIP INFLUENCE ON ORGANIZATIONAL INNOVATION THROUGH ORGANIZATIONAL LEARNING

Atif Hassan, University of Management and Technology (UMT), Pakistan

During the last few decades, there have been a number of researchers establishing the positive effect of ethical leadership on organizational innovation, but there are very few researches presenting a deeper understanding of the role of organizational learning in this relationship, which is the main objective of this research. For the purpose, two hypotheses were developed: the first one predicting positive relationships between ethical leadership and organizational innovation, and the second one suggesting the moderating role of organizational learning in the effect of ethical leadership on organizational innovation. The respondents consisted of the staff members of the software industry.

CONSUMER XENOCENTRISM IN RUSSIA: ANALYSIS OF A MODERATOR AND CONSEQUENCES

José I. Rojas-Méndez, Carleton University, Canada
Julia Kolotylo, Carleton University, Canada

The purpose of this study is threefold: (1) to test for external validity of the X-Scale; (2) to determine the predictive validity xenocentrism upon consumer willingness to buy foreign made products and preferences for foreign brands; and, (3) to explore the moderating effect of languages command on the relationship between xenocentrism and consumer preferences. The conceptualization is based on System Justification Theory and Social Dominance Theory. The study was carried out across Russia by means of an online survey. Results indicate that the X-Scale achieves psychometric properties, and its two dimensions of Foreign Admiration and Domestic Rejection are good predictors of preference for foreign brands. Consumer xenocentrism is manifested towards products and brands coming from developed countries as opposed to developing or transitional ones. Russian consumers are xenocentric, and the ones overall scoring higher in this construct are males, younger, and highly educated citizens. The relationship between xenocentrism and preferences for foreign brands is moderated by the number of languages spoken, with those speaking more than one language having a stronger effect. These results lead into a discussion of the nature of Russian xenocentrism and potential managerial implications.

A RESEARCH OF ONLINE DIRECT ACCOMMODATION SALES UNSUCCESS

Ridvan Kozak, Anadolu University, Turkey

Although almost all accommodation facilities are located on the Internet today, it is seen that they mostly have web sites designed for information and promotion purpose only in static structure. Of course, the presence of functional and interactive websites that provide secure online and online payment with constantly updated pricing information is undeniable. Theoretically, it is argued that the Internet has developed the direct communication and interaction with the customers of the accommodation enterprises, but the conditions that make this theory difficult to accept are in question. For example, Online Travel Agents (OTAs) are responsible for a high proportion of online accommodation bookings. On average, 76 percent of bookings at independent hotels are made through OTAs. High commission payments are loudly voiced in accommodation sector.

The purpose of the study is to (1) discover reasons as to why consumers cannot easily interact directly with the hotels, (2) address different dimensions of accommodation facilities such as web structures, consumer search behavior, online brokering and positioning in search engines, and (3) recommend the alternative business model in which accommodation facilities could be advertised on the Internet, permitting consumers of services to obtain information about suitable accommodation via the business model that does not involve heavy commission.

CANTONAL BUSINESS STRUCTURE IN COSTA RICA: OLD AND NEW ECONOMY, GENDER, INFORMALITY AND ICT ACCESS ANALYSIS

Agustín Gómez-Meléndez, Open State University, Costa Rica
Lizette Brenes-Bonilla, Open State University, Costa Rica
Ligia Bermudez-Mesén, Open State University, Costa Rica

The purpose of this research was to build a model for the classification of the 81 cantones of Costa Rica according to the structure of their economic activity, measure through the commercial license (Municipal Patent), which are the legal mechanism for a SME´s to exercise a lucrative activity in each respective canton. The research looks into the structure of each canton and their respective commercial license and develop a cluster analysis and a descriptive analysis to contrast one possible conceptual classification of the cantones. Key findings were able to confirm the structure of three different types of classification for each canton. This study contributes to the analysis of the behavior of the SME´s in each canton and helps to demonstrate that the economic activity can be classified into, new activities, traditional activities and ICT access.

PAPERS

YOUNG SOUTH AFRICAN CONSUMERS *VERSUS* FMCG REWARD PROGRAMS

Marius Potgieter, North-West University, South Africa
Thuto Mandlasi, North-West University, South Africa

Today's consumer is inundated by marketing stimuli and incentives, but they are also more informed and value demanding, especially young consumers. Consumer reward programs (CRPs) is a tool used in relationship marketing in an attempt to get a consumer to return to an outlet (a consumer behavioral tendency) in exchange for a reward, whilst the marketer obtains valuable marketing intelligence necessary for customized integrated marketing communication with the member consumer. The name of CRPs is a contentious issue as CRPs are often referred to as a 'loyalty' program whilst the concept loyalty is a psychological state of mind. This study is an initial study to understand the concept loyalty and the CRM practices of young South Africans, as well as their opinion of CRPs of FMCG outlets. A group of consumers ranging from 15 to 35 years of age participated in this study and their CRP membership is based on the rewards they get. Less than half of the consumers' purchasing behavior is influenced by any CRP and nobody referred to loyalty in any form. Marketers need to reconsider the image of their CRPs and devise ways of getting especially male consumers interested in such programs. Consumer loyalty probably will remain a bone of contention for some time to come.

Introduction

Consumers are overwhelmed with marketing stimuli to be 'up to date' and marketers are pressurized to realize marketing objectives. But, can contentious phrases be justified by the marketing fraternity? One such phrase used by fast moving consumer goods (FMCGs) marketers is 'loyalty' programs, a relationship marketing strategy used for securing consumer patronage through incentives and rewards (Breugelmans et al., 2015; Kang et al., 2015). Or should such programs justly be referred to as consumer reward programs (CRPs) (Arbore & Estes, 2013; Gómez et al., 2012)?

Various FMCGs use consumer award initiatives together with technology and innovation progressing into uniquely coded and/or scanner-readable cards. The purpose of CRPs, from a marketing perspective, is to acquire consumer-related information on consumption patterns and purchases captured into mega-databases and used for marketing purposes by means of data-mining processes and techniques (Brown, 2012). This then facilitates the customization of integrated marketing communication, making especially young consumers who are harder to reach but who more impressionable (Baar, 2013; Under30CEO, 2018) feel special. Unfortunately, not much is known about young South African consumers' opinion of FMCG CRPs and it might possibly be a missed opportunity. Do these consumers regard CRPs as providing them with honest value (product augmentation with a possible unique selling proposition) to a product, brand, or FMCG outlet; or are such marketing initiatives merely regarded as 'just another card in my collection' (unsuccessful differentiation)?

The practice of CRPs is to give a reward when a particular number of points have been accumulated. The reward can be an instant cost saving, member-only deals, rebates, or eligibility for competitions. The primary function for a marketer is to attain and maintain a consumer, a reliable source of marketing intelligence and potential income. For the consumer, a CRP is the reward. But, considering the phrase 'loyalty' programs: Can loyalty be bought? And, is it just to refer to such programs as loyalty programs? The term/phrase Consumer Reward Programs (CRPs) is used throughout this study seeing that consensus has yet to be reached on this point. Loyalty is not a unassuming concept and there is still a searching for the most effective way to comprehend, define, and realize loyalty and this study hopes to shed some light on the subject, as seen from young South African consumers'perspective.

Relationship marketing, consumer loyalty, and CRPs are immense fields of specialization which cannot be unraveled in one presentation and the focus of this study is on young South African consumers' opinion of FMCG reward programs. The specific objectives for this paper are: (1) to obtain an understanding of the word loyalty as it relates to consumers; (2) to acquire a depiction of the FMCG reward program practices of young South African consumers; and (3) to attain an indication of young South African consumers' understanding of the purpose of loyalty programs.

Presented here are the results of an empirical mono-method quantitative cross-sectional survey undertaken amidst young South African consumers in Mafikeng, the provincial capital of the North West province, South Africa. This paper commenced with introducing the topic and objectives before a theoretical review of loyalty is presented. This is succeeded by an explanation of the research method followed before the research results are revealed. A concluding remark then terminates this paper.

Theoretical Review

The 21st century brought about key changes in marketing thought and the holistic marketing concept with its four broad components surfaced. These components, as per Kotler and Keller (2016), are: relationship marketing, integrated marketing, internal marketing, and performance marketing. CRPs fit into the domain of consumer relationship marketing.

Consumer Relationship Marketing

Retailers seek to develop relationships with stakeholders who might influence their business success. Consumer relationship marketing (CRM) is a business philosophy and a strategic management tool (Tsiotsou & Goldsmith, 2012) which was started in the 1970s and is still used to manage consumer interaction. CRM is based on marketing intelligence and information technology facilitates database marketing. Relationship marketing is employed for building beneficial and lasting relationships (Brown, 2000) with selected constituents.

Du Plessis *et al*. (2005) and Kotler and Keller (2016) indicate that different chains of relationships need to be forged with selected stakeholders. The focus of this study is on consumer relationships and the strength of the relationship chain is determined by providing consumer value (Cannon et al., 2008) before and after each purchase. Relationship marketing is described by the Economist (Monetizing eyeballs, sea) as: “a never-ending and ever-intensifying war for consumers”. Nielsen Holdings (2017) indicated that consumer preference is inclining towards global brands across 34 product categories tested compared to preference and sentiment for local brands. This is ascribed to “consumer shopping and purchase behavior has changed dramatically with the continued maturation of online technologies” (JGSullivan Interactive Inc., 2018). The consumer entered the arena since the advent of consumerism; and, consumers can be fierce and ‘un-forgetting’ enemies. An example of this is the consumer battle in Zimbabwe. Moyo (2018) reported in the Zimbabwean newspaper, The Herald, that most of their chain-retailers “are now locked in a fierce battle to lure boycotting consumers by throwing ‘month end specials’” after consumers were charged extortionately high prices for a number of months.

An FMCG marketer should determine the ‘cost-to-serve’ each consumer and produce an integrated view of consumer profitability when deciding on the consumer mix and level of resources to be committed. There are three keys to consumer relationship marketing (Du Plessis *et al*., 2005): do not treat all consumers equally; act as one company; and add value at every consumer interaction.

Consumer Loyalty

Marketers need to win a share of the market and also the consumer’s share of mind, and share of heart (Kotler, 2000:225). Jefkins (1993) advocated that marketers should go beyond after-sales services and marketers ought to stipulate objectives and devise initiatives to cultivate and nurture consumers’ interest and loyalty to the point where they will ‘insist’ on a given brand (Lamb et al., 2013).

Loyalty is a complex concept and described by Nugent (2013) “the level of solidarity, faithfulness or allegiance to a group or individual.” The Stanford Encyclopedia of Philosophy (2017) describes loyalty as: “usually seen as a virtue, albeit a problematic one. It is constituted centrally by perseverance in an association to which a person has become intrinsically committed as a matter of his or her identity. Its paradigmatic expression is found in close friendship, to which loyalty is integral, but many other relationships and associations seek to encourage it as an aspect of affiliation or membership”.

The Marketing Dictionary of the American Marketing Association (s.a.) does not contain a description for loyalty and refers to brand loyalty, customer satisfaction, customer lifetime value, after sales support to ensure satisfaction and customer loyalty, retention rate, sole usage as a useful metric for determining loyalty, share of requirement as a key measurement of loyalty, and commitment as the degree to which loyalty has been built. Numerous other sources do describe consumer/customer loyalty very specifically as consumers “who have formed an emotional bond with an organization, often as a result of receiving excellent product and services” (Customer Loyalty, 2018) and who behave differently to normal consumers because they: repurchase without considering competing offerings; may be actively involved in discussions about the organization by giving up time for improvement of the organization; recommend the organization to others; are willing to actively advocate the organization; and, will forgive minor errors without loss of loyalty. Marketers should note that consumer loyalty is inclusive of satisfaction, bonding, repurchase, involvement, advocacy, and forgiveness; and that three conditions are used to measure loyalty: a satisfaction of 5/5; evidence of repurchase; and willingness to recommend an organization to others. (Customer Loyalty, 2018).

The CRPs of FMCGs are based on consumer repurchasing and rewards, and not on the above-mentioned premises of loyalty. Consumers base their decisions on promotions and the benefits offered through CRPs rather than on outlet/brand value and "consumers will exhibit behavior that appears to be rational and strategic, whilst in fact it is yielding minimal change in long-term customer loyalty" (Wang et al., 2016).

Williams (1982) stated that researchers do not find the same patterns of loyalty and findings cannot be cross-compared, and Bowen and McCain (2015) said that loyalty should include a positive attitude before it can be regarded as true loyalty because repeat purchase is not loyalty. Hawkins (1983) reported that loyal versus non-loyal consumers cannot be distinguished based on socioeconomic, demographic, and/or psychographic differences and that consumers are more sensitive to market activities.

A conceptual framework for grasping the dimensions of consumer loyalty was invented by Uncles et al. (2003) who proposed that consumer loyalty should be considered in terms of the following three models: (1) Loyalty as an attitude that sometimes leads to a relationship with a brand (Model 1); (2) Loyalty mainly expressed in terms of revealed behavior, such as the pattern of past purchases (Model 2); and, (3) Buying is moderated by an individual's characteristics, circumstances, and/or the purchase situation (Model 3).

Monogamy refers to a consumer who has attitudinal loyalty towards brands, meaning a favorable connection between relative attitude and repeat buying behavior. Polygamous loyalty (Model 2) represents a consumer with divided loyalty towards a few brands. It indicates an important concern for marketing professionals, as it is a high relative attitude with low repeat buying behavior. This attitude may be caused by subjective or situational circumstances and implies that even if a consumer does have a positive attitude for a brand, retail outlet or organization, this does not convert into 100 percent loyalty. Promiscuity (Model 3) occurs when there is no loyalty and low attitude together with low repeat buying behavior, thus a total lack of loyalty.

Smith et al. (2004) concurred and said that more suitable approaches to understand loyalty and not just repurchasing should be undertaken as consumers attempt to reduce their decision-making risk (Du Plessis & Rousseau, 2007). Swinscoe (2014) reported that 96 percent of consumers would be tempted to switch loyalties to a competitor based on good price promotions and that loyalty programs in its current state can be regarded as a bribe, who also recommended that the meaning of loyalty should be re-examined from a consumer behavior perspective.

The foundational consumer behavior theories form the basis upon which consumer behavior is grounded and these theories, as presented by Bernstein (2016), are: the Marshallian economics theory, the psychoanalytical theory, the Pavlovian theory, and lastly the Veblenien social-psychological model. There theories should ideally be used in conjunction with a number of theories in the decision-making group of theories when studying the sphere of loyalty and CRPs from a consumer behavior perspective. Decision-making theories relevant to consumer loyalty can be divided into three facets (Theories about decision-making, 2018) and these are: (1) motivation to decide – the consistency theory, the commitment theory, and the confirmation bias theory; (2) thinking process theories – hyperbolic discounting (consumers seek small benefits in the short term over a larger benefit in the longer term) and source credibility; and (3), deciding theories – boundary rationality (giving a consumer a few choices with limited criteria to not complicate decision-making), explanatory coherence (helping consumers to develop an internal hypothesis that is easy for them to accept), filter theory, involvement, multi-attribute choice, perceptual contrast effect, and also priming (providing stimulus that influences consumers' near-term future thoughts and actions) with its eight dimensions. These theories then need to be carefully orchestrated by marketers with very specific techniques and a selection of principles in order to consider building loyalty as a marketing objective for relationship marketing through reward/loyalty programs.

Consumer loyalty is the sought-after result of a long-term relationship with consumers (Kumar, 2000) and consumers have different options and low switching difficulty. Consumers can change between organizations and this is a threat to consumer relationships because consumers are less likely to commit to only one organization (Yuping, 2007). One of the anticipated benefits of service quality is to build consumer loyalty which leads to positive word-of-mouth (Kotler et al., 2006) through relationships. However, consumer satisfaction alone does not propagate loyalty (East et al., 2012), "satisfaction leads to personal recommendations and therefore to recruitment of new customers" (Blythe, 2013). However, Babin and Harris (2015) said the opposite is just as true: "Antiloyal consumers are those who will do everything possible to avoid doing business with a particular marketer."

Conceding to the conviction that it is more cost effective to retain consumers compared to convincing a consumer to switch from a competitor, CRM embraced CRPs as a strategic tool to retain hard-earned consumers. Added to this is information technology which is increasing the tools available for innovating marketing tactics for CRM purposes (Uncles et al., 2003). Of all the tactics available, one tactic stands out: CRPs.

Consumer Reward Programs

CRPs are often mistakenly referred to as customer 'loyalty' programs and various phrases have been coined: CRPs, loyalty card/programs, frequent user programs, affinity programs, accumulation programs, loyalty schemes, and repeat purchase programs. The phrase 'loyalty programs' is intentionally not used unless there is certainty that it was designed to build true loyalty (a psychological state of mind which cannot be bought) and not for frequent purchasing (a consumer behavioral tendency). The three reasons why consumer loyalty cannot be bought, according to the MindTouch Digital Team (2018), are: consumers want what they want; consumers acclimate to perks, and consumers can only love what they understand.

Uncertainty concerning the precise meaning of the word loyalty is supported by Babin and Harris (2015) who said that there is an unresolved question as to what exactly constitutes 'loyalty' in terms of CRPs, or is it allowable for marketers to substitute the word with consumer commitment, or retention rate, or sole usage? Loyalty can also be taken further into 'brand love' and Batra et al. (as cited by Basson, 2014) suggested a higher-order factor model with three different factors for understanding brand love and these factors are: passion-driven behavior; self-brand integration; and positive emotional connection.

CRPs are founded on the basis of operant conditioning, where positive reinforcement leads a consumer to return for repeat purchase, an ideal situation for CRPs (Blyth, 2013). There is, however, a debate that consumer loyalty and CRPs should be approached and conceptualized from a behavioral perspective and not be seen as a psychological phenomenon (Tsiotsou & Goldsmith, 2012). Consumer loyalty was described by Kumar and Shah (2004) as a behavioral measure consisting of: proportion of buying, probability of buying again, buying frequency, repeat buying behavior, buying sequence, as well as other dimensions of buying behavior; and, all of these measures must be fulfilled for a CRP to be effective. If such a program fulfills all these measures, then only it can be said that the program will indeed make consumers loyal.

A CRP is described by Tsiotsou and Goldsmith (2012) as a "program that allows consumers to accumulate free rewards when they make repeat purchase with a firm" with the focus on gaining and maintaining a competitive advantage with a defence strategy. The marketing objective then shift from short-term profitability to long-term consumer retention. Babin and Harris (2014) added that such programs offer a reward as an incentive of future purchase. For marketers to be able to design and refine effective reward programs, they need to identify and comprehend the set of important performance predictors specific to their organization and market.

There are different types of CRPs and the most often types are single-firm reward programs and Schumann *et al.* (2014) explain that a coalition reward program "brings together an assembly of partners across a broad range of retail and service sectors." Lee et al. (2014) furthermore explain that the focus of a point-based program is on short-term sales whilst the focus of a rewards-based program is on long-term sales. Kim et al. (2013) indicated that the positive predictors of CRPs are monetary savings, entertainment, and social benefits. The approach to designing a CRP depends on which of the design components provided by Breugelmans et al. (2015) is/are incorporated: membership requirements (voluntary or automatic); program structure (frequency reward programs – FRPs and customer tier programs – CTPs); point structure; reward structure; and program communication. All CRPs, irrespective of what it is called, provide some form of incentive and such a program has two effects, as explained by East et al. (2013): (1) the program may increase consumer acquisition, share of wallet, and their retention by influencing consumers; and (2), consumer data obtained could be utilized for more precise market segmentation and targeting to acquire more consumers, increase their spending and retention.

Many B2C organizations today have a CRP for various reasons, such as rewarding regular consumers whilst others felt forced to imitate competitors (East et al., 2013). CRPs is a marketing tool used to boost organization-consumer relationships although relationship initiatives on a B2B-basis in South Africa is still very fragmented and uncoordinated (Roberts-Lombard & Steyn as cited by Tsiotou & Goldsmith, 2012). It should be kept in mind that CRM encompasses all stakeholders and role-players in the marketing environment (micro, market, and macro environments) of an organization and not just consumers, as is the case in this study.

Most CRPs enable consumers to earn rewards repeatedly and consumers work towards obtaining the reward. Once a reward is obtained the consumer have to build up to the reward again. A study by Dréze and Nunes (2011) revealed that reward trade-ins in the airline industry specifically are followed by increased effort to reach the same goal again only if success requires perseverance. It would be interesting to determine if the same finding would be valid for FMCGs seeing that frequently obtained small awards do not have this effect; but, a well-designed CRP does stimulate repurchase. Some CRPs are designed to provide a consumer with additional incentives without any additional costs incurred, such as get 1 night free for every 10 nights purchased with Hotels.com. Another approach is to design the CRP in a hierarchical structure with multiple tiers (three is recommended by East et al., 2013:40) as the most effective) and special awards, status, benefits, and number of allowable consumers associated with the different levels. This design facilitates making as many as possible consumers feel special and appreciated. Some

CRPs are based on future purchase whilst others, especially those in the USA, offer on-the-spot discounts on selected produce.

CRPs form an intricate network with information technology, together with database marketing where large volumes of data are collected and data-mining then enable custom-made and personalized integrated marketing communication with individual consumers. Shopping patterns and buying behavior can now be tracked and consumer defection can be traced and counteracted upon.

Most CRPs issue loyalty cards to their members and, "In fact, in many ways people are not loyal, and their loyalty cannot be bought: only a small percentage of loyalty card holders actually are loyal, and the existence of loyalty cards has had minimal impact on market structures. If loyalty can be generated, though, it does increase profitability" (Blyth, 2013). However, researchers are still interested in the incentive effect of loyalty cards but East et al. (2013) indicate that this is difficult to measure because of the countless influencing factors. CRPs, as advocated by Blyth (2013), are popular amongst business consumers, especially in the airline industry, because a company foot the bill for purchases whist the cardholder reaps the benefits of the rewards without contributing anything.

Some CRPs are successful in building a consumer base by increasing their number of consumers (market share) rather than convincing existing consumer to buy more (to increase their share of wallet). What also should be guarded against is to create the impression that a CRP is the ideal shopping opportunity for bargain shoppers (deal-seekers) cross-holding membership with multiple programs and select outlets based on best offers (Xie & Chen, 2014; Babin & Harris, 2015) without showing any sign of loyalty towards any outlet. Seen from a different perspective, many FNCGs have a CRP and will provide members with incentives to return to the same outlet, even if the consumers do not have any loyalty towards any of the produce and/or brands offered for sale, as long as the consumer returns to the outlet. However, Gómez et al. (2012) advice that marketers of specifically grocery outlets should "focus their efforts on designing loyalty programs which contribute to improve the perception the consumers have thereof" and this can be achieved by offering a variety of incentives comprising tangible and intangible rewards. A major challenge for marketers today is to invent ways to transform consumer frequency from a CRP into outlet loyalty by integrating economic, psychological, and sociological mechanisms (Kang et al., 2015) as this is in concurrence with the following explanation provided by Evanschitzky et al. (2012): "company loyalty primarily attracts customers to a particular outlet and program loyalty ensures that once inside the store, more money is spent."

Marketers of FMCG CRPs should explore the cognitive evaluation theory and the rational choice theory in terms of how consumers evaluate rewards in association with the redemption issues related to such programmes, as recommended by Noble et al. (2014). Marketers then should base their marketing strategies and tactics on the extrinsic motivation theory which rests on the premise that consumers are driven by external tangible rewards and program members could be enticed with positive motivation such as rewards (Changing Minds, 2018). In addition to this, intrinsic motivation should be incorporated into all integrated marketing communication to assist members in realizing the fun of being a member and to align their values with that of the outlet.

Contemporary and Future Prospects

With time comes innovation and this means change. A contemporary development of CRM is CRM 2.0 (eCRM 2.0), or also known as Social CRM and this is CRM adapted and incorporating the growth of the social web in its many forms (Tsiotsou & Goldsmith, 2012). Technology and connectivity contribute towards the dynamic nature of the consumer market and consumer behavior and Blythe (2013) said in this regard that loyalty to an outlet tends to be higher for on-line suppliers due to the risk-factor of buying on-line. But – a word of warning is expressed by Bowen and McCain (2015): "loyalty models developed for Boomers will not be a good fit for Millennials" and marketers will have to change their understanding of consumer loyalty and amend their CRPs to enable then to maintain the loyalty of Baby Boomers and Gen-Xers whilst adding features to their programmes to attract Millennials.

The CRP phenomenon was praised as an excellent way to instill and maintain loyalty. However, in recent years the effectiveness of CRPs has been questioned by both the business media and the academic community. The most noticeable criticism includes an article by Harvard Review (2017) titled: 'Why your customer loyalty program isn't working'. Some academic studies also suggest that CRPs produce no effects (De Wulf *et al*., 2001) or only small effects on purchasing behavior, as ascertained by Verhoef et al. (2003).

Despite harsh criticism, CRPs do exist and should be augmented in such a way that it is beneficial to both FMCGs and consumers alike. Marketers should improve the general worth of their products and services through their CRPs to get a consumer to make another purchase. Dreze and Nunes (2011) developed a program of research to observe knowledge from consumer behavior to assist a marketer to plan and advance a reward program because the objective should not only be to reward consumers but also to acquire critical intelligence about the consumer. Today's technology and electronic point-of-sale systems empower marketers to obtain more intentional consumer data through database marketing and reward programmes. Marketer should take note that advancements in information technology, marketing analytics, and consumer interface platforms are nowadays driving relationship marketing and consumer reward practices, according to Breugelmans et al. (2015), who also listed the following emerging trends: rising popularity of partnership loyalty programmes and the formation of mega-coalitions; the impact of internet technology, mobile platforms, and social media; and lastly, the emergence of powerful intermediaries. In addition to this is interfacing CRPs and smart shopper cards with smart shopping carts and radio frequency identification devices to monitor shopper location and purchasing patterns in an outlet (Kim et al., 2013).

As a concluding remark, CRPs are here to stay and must be made to work and the investment in such programmes can be justified when the range of advantages derived from loyalty data are included (East et al., 2013).

Research Method

This study commenced with a critical theoretical literature review and primary empirical data were obtained with a structured questionnaire in order to obtain a preliminary understanding of young South African consumers' practices and opinion on CRPs by means of a descriptive empirical survey, as suggested by Berndt and Petzer (2011), Bless et al. (2013), Kumar (2014) and Saunders et al. (2016) for this type of study.

Supporting evidence was obtained in South Africa and the research population (N) targeted was young South African consumers, also referred to as Millennials, Gen-Y, Generation-We and the Net-Generation (Bowen & McCain, 2015). The limitations under which this study was undertaken is that a population frame of all units of analysis could not be obtained or constructed and the purposive non-probability convenience sampling method had to be followed, as suggested by Babbie (2010:208) and Bernard (2013). A total of 115 young South African consumers (n) in Mafikeng participated as sample members. The phrase South African for the purpose of this study refers to a person residing in South Africa. However, it should be noted that neither are any research results obtained representative of all consumers in South Africa nor of all 54 countries on the continent of Africa.

Sample members were chosen on the basis of their immediacy to the field-worker and their inclination to participate, as recommended by David and Sutton (2011:231), Cant and Van Heerden (2013:144), and Remler and Van Ryzin (2015). The screening parameter was that prospective sample members must be young South Africans and between the ages of 15 and 35, in accordance with the African Youth Charter as indicated by the United Nations (UN, s.a.). The fieldwork was undertaken at public areas easily accessible and where consumers come together, such as parking areas, taxi ranks, and bus terminuses. A structured questionnaire was used as research instrument to obtain the primary data needed for this study, as recommended by Bradley (2010:120).

The research instrument used for this descriptive study with its quantitative elements was a self-completing questionnaire, as suggested by Saunder et al. (2016). The questionnaire contains sufficiently clear instructions, as recommended by Berndt and Petzer (2011:32) and was to ensure that the primary information required was acquired from sample members. This is unfortunately a cross-sectional study and data collection was not continual due to the inherent limitations of this study. The questionnaire was pilot tested and refined before being used and comprises of various sections dealing with the demographic descriptors of the participants, this is followed by a series of questions concerning the CRP practices of young consumers, and lastly questions to obtain an understanding of the effect of CRPs on their purchasing behavior. Content validity of the constructs in the questionnaire was verified by referring to academic material and contemporary research published in relevant journals.

Initial data editing was embarked on together with fieldwork as the questionnaires were scanned for completeness when collected, as recommended by Aaker et al. (2011:335). A total of 115 completed questionnaires were obtained and edited and no questionnaires were discarded as respondents were requested to provide missing information during collection. All the questionnaires were coded, and the data were captured and statistically analyzed with descriptive and inferential statistical tests. Following is a presentation of the research results that were obtained.

Research Results

Subsequently is a presentation of the research results of this study and the dataset was statistically analyzed with SPSS.

Loyalty and Consumer Reward Programs

A key-word search was undertaken on numerous electronic databases and the consumer loyalty *versus* frequency rewards proofed to be a contentious issue and the marketing fraternity should reach consensus as this has a direct impact on industry and the initiatives of FMCG outlets, as well as on future research.

Composition of the Research Population

A depiction of the research population was obtained to enable understanding its configuration in terms of three demographic descriptors and the aggregated results are presented in Table 1.

Table 1. Research Population Composition

Descriptor	Frequency (%)
Gender:	
Male	37
Female	**63**
Age (years):	
<20	2.6
18-23	32.2
24-29	**51.3**
30-35	13.9
Ethnicity:	
Coloured	38.3
Black	**46.1**
Indian	13.0
White	2.6

The realized sample size is 115 respondents and most were females and the common age represented in the sample was between 24-29 years (51.3%). All of the participants were South African and blacks represent the largest segment of the participants.

In alignment with the objectives, a series of questions were formulated to obtain an indication of the CRP practices of young South African consumers. Respondents were provided with a set of six statements to test their understanding of the purpose of a CRP and 53.0% of the respondents selected the first option that the purpose of a reward program is to 'reward consumers who purchase regularly' and this was followed by 'to make customer return to the store' (20.0%). Only 1 respondent selected 'I do not understand what a consumer reward program is.' This implies that the responses obtained can be regarded are significant for research purposes as respondents understood the research topic and could respond in a meaningful way to the questions.

The research results revealed that females have a significant higher inclination (64.4%) to be members of CFPs in contrast to the 54.8% males who are non-members of CFPs. This finding should be further investigated as there could be fundamental and/or significant reasons marketers should be aware of in this regard. Cross-comparing age with membership, the pattern that emerged is that membership increases with age, thus a positive correlation. Based on ethnicity, CRPs are more sought after by black consumers than any of the other groups. The respondents who indicated that they do not hold membership to any CRP were asked if they would care to enroll and only 34.7% indicated that they would. This is also concerning and deserving further investigation as to why 65.3% of the 34.7% declined. When asked for the reason why they do not want membership, a cumulative percentage of 73.5% opted that there will be too many cards in their purse/wallet (38.8%) and that CRPs do not really offer substantial rewards (34.7%).

An independent-samples *t*-test was used to ascertain whether there are any significant differences amongst age and the CRP practices of respondents and the rest of the data was subjected to one-way ANOVA tests. In terms of age – no statistical difference was detected between males and females at a 95% confidence interval ($p=0.38$). A statistical difference was recorded for ethnicity ($p=0.00$), blacks and colored have a higher mean score and this implies that these consumers have a more positive opinion regarding the value of CRPs. In terms of polygamous loyalty, 98.5% of the respondents do not consider it as disloyal to belong to more than one CRP and 23.1% indicated that FMCG outlets should compete for consumer loyalty.

The third objective relates to the effect CRPs have on consumers' purchasing behavior and 45.5% of the respondents indicated that CRPs do influence their purchasing behavior. Only these respondents were then asked to select one option that best describes the influence of CRPs from a set of five and 53.3% opted that the influence is due to the rewards and benefits. Loyalty, unfortunately, does not feature as none selected outlet loyalty as a reason for membership – thus, supporting the reason why the phrase 'loyalty programs' is not used for the purpose of this paper.

Conclusion

Young South African consumers is a new generation, and this calls for new marketing approaches as these consumers are not only influenced by one-directional marketing-controlled stimuli, they are more likely influenced by the opinions of their compeers via online social networks. Young consumers are characterized as a generation demanding immediate action, gratification, and value; and marketers should devise CRPs that fit into this milieu in order to achieve marketing objectives. Young consumers are different, and the research results obtained in this study indicate that young consumers do hold a positive opinion towards CRPs, but it is concerning that there so many that do not regard CRPs as of value, as well as that many male consumers are not supporters of CRPs. This could mean that marketers should reconsider the image of CRPs and should maybe include 'maleness' into their marketing communication or offer a range of benefits for males only. In addition to this is the phrase 'loyalty', which needs reconsideration and in-depth research by the marketing fraternity, especially since young consumers who participated in this study clearly indicated that store and program loyalty does not feature as a reason for being a member to any CRP.

The research results and findings of this study are specific to the research participants and it cannot be generalized that this is representative of all young consumers on the African continent. It is thus prescribed that comparative research be led with a significantly bigger sample size to obtain comparable information from other geographical areas and countries as the CRP practices and opinions of different groups could differ.

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DEVELOPING WEIGHTS FOR PPP PERFORMANCE INDICATORS IN EMERGING COUNTRIES: AN APPLICATION OF ANALYTICAL HIERARCHY PROCESS (AHP)

Mohammad Hossain, Griffith University, Australia
Ross Guest, Griffith University, Australia
Christine Smith, Griffith University, Australia

While the use of PPP options increases over the last two decades in the developing countries, their contested performances are recorded. Conventional performance measurement approaches (e.g. Public Sector Comparator (PSC) analysis, best practice approaches and unweighted performance indicators) are inadequate to reveal true performances of PPPs. An objective assessment can provide better understanding of the actual performances, especially in developing countries. In particular, against the backdrop of unweighted performance indicators, this research aims to establish weights for performance indicators responsible for generating different results for the projects with differing characteristics and operating context in the developing countries. Applying Analytical Hierarchy Process (AHP) approach, weights for forty-one performance indicators have been developed. A different set of indicators (unlike cost, time and quality) are found dominant in Bangladesh. This model of forty-one weighted performance indicators and differing top ranked indicators represent major contributions to the literature on PPP performance indicator system in the developing countries. An application of this model to derive performance scores for individual PPPs might be an interesting forthcoming research agenda. Future research could also usefully focus on testing this model in different countries.

Introduction

The relative importance (weight) of performance indicators influences the outcome of performance assessment for public private partnerships (PPPs). Determining the weights of the indicators and their application in performance assessment could help reveal the performance that PPPs should aim to cultivate in achieving the best value for money. To measure PPP performance, different approaches have been applied previously, for example, the conventional way of measuring cost, time and quality dimensions gauge only the success of the project (Atkinson, 1999). By contrast, an objective based measurement approach has been used to measure whether the initially specified objectives have been achieved compared to a pre-specified standard (Liyanage & Villalba-Romero, 2015). In addition, governments have often evaluated project success or failure considering the political purpose and governance strength of the project, rather than using utilitarian characteristics (Hodge & Greve, 2016). Furthermore, a Key Performance Indicator (KPI) system is one of the prominent approaches, and it includes a number of indicators to measure different dimensions of performance (OECD, 2008; Regan, Smith & Love, 2011). However, understanding the weight of these various performance indicators is needed to apply these weights in measuring overall PPP performance. By using weighted indicators, the interests of different stakeholders could possibly be better mirrored into the performance evaluation framework, since indicators hold unequal weights in terms of an overall performance score for a particular project.

This study focuses on the perspective of developing countries, recognizing a relatively poor operating environment and reasonably more scope for opportunism and corruption which in turn have an association with the success or failure of the project (Hammami, Ruhashyankiko & Yehoue, 2006; Percoco, 2014). Developing countries' PPPs also often underperform due to a weaker financial market, unstable macroeconomic factors, and a lack of political commitment (Sanghi, Sundakov & Hankinson, 2007). In these circumstances, Bangladesh represents an ideal case, where PPP arrangements first appeared in the mid-nineties right after it materialised in the developed countries. Considering, however, sluggish advancements and poor performances, the perceptions of practioners and academics for understaning the relative importance of the performance indicators need to be assembled and analysed. For this end, experts in relation to PPPs in Bangladesh were surveyed to make pairwise comparisions of various performance indicators using a structured questionnaire developed using an Analytical Hierarchy Process (AHP). The AHP has been applied for determining the weights of indicators because of its relative advantages compared to other available methods. The Delphi method needs to be directed among the experts in several rounds, which needs more time and resources (Franklin & Hart, 2007). By contrast, the AHP approach is simple to use and more appropriate by applying transitive ordering of human personal preferences to make pairwise comparisons (Saaty, 1990).

The structure of this paper is as follows: Section 2 follows with a brief review of the related literature, which reveals a gap to be filled by the current research. Section 3 describes details of the methodology with the relative advantages of the AHP; section 4 presents an analysis of the survey data, followed by a discussion of the findings. In section 5, a conclusion has been drawn with policy implications.

Literature Review

PPP Performance Measurement in Developing Countries

A traditional performance measurement framework of cost, time, and quality (Kennerley & Neely, 2003) is insufficient for evaluating very complex PPP ventures both in developed and developing countries. It needs to be extended to a broader form of evaluation mechanism (Love, Liu, Matthews, Sing, & Smith, 2015) irrespective of the countries in which PPP projects are implemented (Raisbeck, Duffield, & Xu, 2010). The design of an appropriate performance evaluation framework for PPPs has been argued to be more challenging than for conventional public procurement (Grimsey & Lewis, 2002). A single method seems inappropriate to fit all PPP types, since they are so varied in attributes and purposes. Some researchers (Chasey, Maddex & Bansal, 2012; Chen, Daito & Gifford, 2016; Raisbeck et al., 2010) have attempted to empirically analyze PPP performance by focusing on the specific country, sector or individual project, rather than generalizing for a particular group such as developed or developing countries. Those initiatives generally measure performance based on only the cost and schedule dimensions. Other researchers (Grimsey & Lewis, 2002; Yuan, Zeng, Skibniewski, & Li, 2009) have recognized the importance of life cycle phases to capture dynamic issues that might happen in the different phases of the project.

Yuan et al., (2009) proposed a performance objectives model that comprises five performance packages. Using a Likert scale survey among different stakeholders, Yuan et al., (2011) subsequently derived an estimate of the relative importance of the indicators, clustering them into five KPIs; however, the operating context of the PPP project was ignored. For example, better transparency and accountability for executing a PPP project in an advanced country can lead to better performance. Accordingly, the results found in such a study cannot be used for generalizing the performance framework applicable to developing countries. Likewise, in the context of some European countries, ‘overall’ success of transport PPPs was measured using a Qualitative Comparative Analysis approach (Liyanage & Villalba-Romero, 2015). This study differs from the current research in respect of its regional focus and its approach to measuring the relative importance of the performance indicators.

From the above discussion, it is evident that no attempt has been made in the context of an emerging country such as Bangladesh to establish weights of performance indicators applying the Analytical Hierarchy process (AHP). Such a weight of indicators is needed to better assess the performance of PPPs, no matter where (developing countries as well) PPP projects are located (Raisbeck et al., 2010). Filling this gap is the focus of the research reported in this paper.

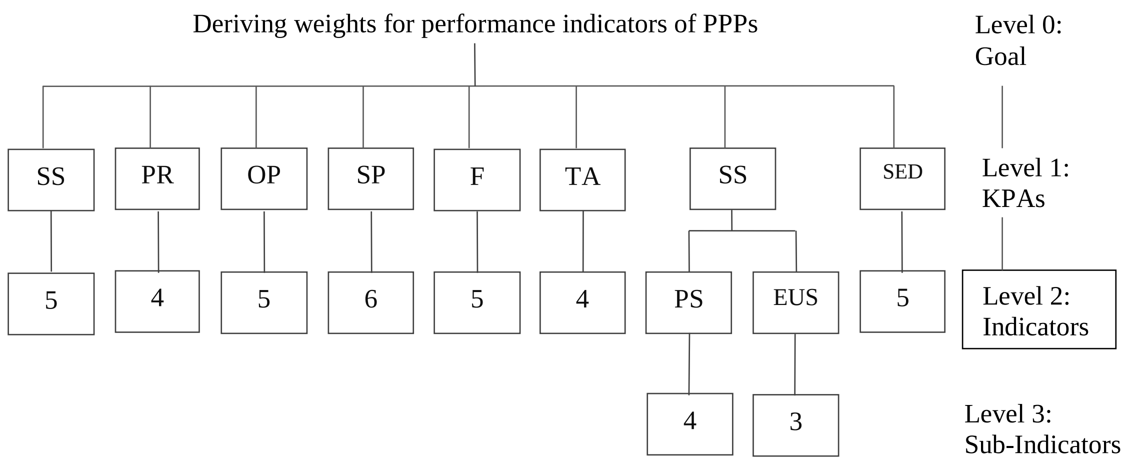
PPP Performance Indicators

Forty-one performance indicators have been identified by the review of extant literatures. Some of these are selected based on an understanding from the discussion in the references cited in the bracket. The indicators are grouped into eight key performance areas (KPAs). Clustering them has been made considering each indicator’s relevance to a particular KPA, a degree of the performance of that KPA it represents, and its place in the life cycle of a project. The indicators that appear repeatedly in the project life are included in the KPA in which it appears first. However, most of the indicators belong to KPAs in a sequential order relating to the different phases that appear one after another in the life cycle process of PPPs.

KPA wise performance indicators included: (1) Planning and initiation—needs assessment, feasibility analysis (Tsunoda & Islam, 2014), SMART objectives (Liyanage & Villalba-Romero, 2015), implementability assessment (Yuan, Wang, Skibniewski & Li, 2011), public interest test (Zhang, 2005); (2) Procurement—efficient concessionaire selection (Yuan et al., 2011), selection criteria and method (Tsunoda & Islam, 2014), Fairness and transparency (De Jong, Mu, Stead, Ma & Xi, 2010), standardized contract (Van Den Hurk & Verhoest, 2016); (3) Operation—cost performance, time performance (Raisbeck et al., 2010), quality of assets, dispute settlement (Yeung, Chan, Chan & Li, 2007), life-cycle maintainability (Love et al., 2015); (4) Sustainability of partnerships—trust and respect (Yeung et al., 2007), relationship dilemmas (McCarter & Kamal, 2013), private sector’s knowledge and expertise (Zhang, 2005), public sector capacities in coordination, partner’s roles and responsibilities (Yuan et al., 2011), project sustainability (Hueskes, Verhoest & Block, 2017); (5) Financing—optimal allocation of risk, payments and government guarantees (Aslan & Duarte, 2014), financial cost, government liabilities (Delmon, 2015), optimal revenue sharing (Shan, Garvin & Kumar, 2010); (6) Transparency and accountability—integration of the locals (Willems & Van Dooren, 2016), disclosure of project information (Delmon, 2015), life-cycle evaluation and monitoring (Love et al., 2015), responsiveness of concessionaire; (7) stakeholders satisfaction—meeting objectives, economy of the services (Liyanage & Villalba-Romero, 2015), value for money (Grimsey & Lewis, 2005), profitability (Yuan et al., 2011), efficient management of risk (Grimsey & Lewis, 2002), availability of the services, quality of the services (Yeung et al., 2007); (8) Socio economic development—PPP sector development (Jordan, 2015), innovation in public sector, environment friendliness (Yuan et al., 2011), employment generation and infrastructure development (World Bank, 2017).

Methodology

The AHP is a Multi-Criteria Decision Model that was originally developed by Saaty (1980) and is widely used as a mathematical model in solving a complex decision problem that has multiple criteria. The AHP permits an overall decision problem to be broken down into individual elements and allows an analysis of the relationships of these elements with each other (Saaty, 2008). It involves a series of pairwise comparisons made for the indicators of a decision problem and permits quantification of subjective and objective judgements into numerical weights (Elwakil, 2017). Performance evaluation of PPP projects is a complex task since the interests of a diverse group of stakeholders is involved in the process of evaluation. Further, there is an information asymmetry in the domain of project actual performance (Hodge & Greve, 2016). Given the context, the AHP is recommended as an appropriate method to be employed in this study.



Notes:
Level 01: (KPAs)
PI- Planning and initiation; PR- Procurement; OP- Operation; SP- Sustainability of partnerships; F- Financing; TA- Transparency and accountability; SS- Stakeholders satisfaction; SED- Socio economic development.
Level 02: Indicators (from left)
4, 5 and 6 indicate number of indicators in the box; PS- Partners satisfaction; EUS- End users' satisfaction
Level 03: Sub-indicators

Figure 1. Model of Hierarchical Representation of Goal, KPAs and Sub/Indicators
Source: Hossain, Guest & Smith (2018)

The AHP involves construction of a hierarchy that contains all KPAs and indicators in relation to a goal that needs to be achieved. At the top of the hierarchy is the goal that is followed by KPAs in level 1, indicators in the level 2, and sub-indicators in level 3. The number of levels varies depending on the type and complexity of the particular decision problem. A hierarchical representation of this study is depicted in Figure 1. A semantic scale of 1 to 9 is used to value the pairwise comparisons of the indicators and sub-indicators. Using the scale, the experts put the values for the relative importance of the sub/indicators. The detail of the 1-9 scale is described in Table 1.

Table 1. The Scale of Relative Importance (Saaty, 1990)

Intensity of importance	Definition	Explanation
1	Equal importance	Two elements are of equal importance
3	Moderate importance	Experience and judgement slightly favor one element over another
5	Strong importance	Experience and judgement strongly favor one element over another
7	Very strong importance	An element is strongly favored and its dominance is demonstrated in practice
9	Absolute importance	The evidence favoring one element over another is of the highest possible affirmation
2, 4, 6, 8	Intermediate values	When compromise is needed

Let, a_{ij} (for $i,\ j = 1, 2, 3........n$) be the numerical judgement of a respondent, such that an entry in the ith row and jth column in the Matrix A is given. Then for each KPA, there would be an independent but similar matrix following the same dimension $(N \times N)$. Thus, the matrix A would look like one that is as follows:

$$A = a_{ij} = \begin{bmatrix} a_{11} & a_{12} & a_{13} & \cdots & a_{1N} \\ a_{21} & a_{22} & \cdots & \cdots & a_{2N} \\ a_{31} & \cdots & a_{33} & \cdots & a_{3N} \\ \cdots & \cdots & \cdots & \cdots & \cdots \\ a_{N1} & a_{N2} & a_{N3} & \cdots & a_{NN} \end{bmatrix}$$

In determining weights of the KPAs/indicators, the eigenvector is ascertained by algebraic calculation from the matrix A and the priority vector (of weights) is derived by normalizing the eigenvector for each of the matrix (Saaty, 1990). A consistency ratio CR is calculated by using the formula $(CR = CI/RI)$, where the consistency index (CI) tells the 'closeness to consistency' of a set of pairwise comparison judgements and a random index (RI) has been generated by Saaty (1980) based on mean CI values across judgements. In general, $CR > 0.10$ is considered acceptable. However, in the case of a large number of criteria in a comparison matrix CR tends to exceed the general standard of 0.10 (Saaty, 1980). By synthesizing the weights found in the different levels of the hierarchy, global weights for KPAs/indicators have been derived (Dong, Zhang, Hong, & Xu, 2010).

Analysis of the Results

Structured Questionnaire Survey

In this study, an AHP supportive structured questionnaire was used to elicit the pairwise comparisons made by the experts of PPPs in Bangladesh. The survey was conducted during the period of November, 2016 through February, 2017. Bangladesh, like most of the developing countries, has a very limited number of highly experienced PPP experts. To identify these expert groups, a two-stage sampling approach has been used (Osei-Kyei & Chan, 2017). In the first stage, a purposive sampling was employed based on some pre-defined criteria that included: (1) Experience and detailed knowledge of PPP arrangements; (2) Working in one of the PPP projects in Bangladesh; (3) Experience (including research exp.) of training and education to related employees; and, (4) Engagement in the regulatory body or public sector authority of PPP projects.

Built on these criteria, profiles and relevant information (e.g. names, contact details, designation and so on) relating to the potential respondents were gathered from online and physical sources in relevant organizations and with them a preliminary list was made. In the second stage, a number of selected people from the list were met by visiting their offices, following a request for advising some of their known peers and others having experiences in PPPs. Eventually, a list of 110 PPP experts was finalized. Questionnaires were then distributed to 110 experts either by email or visiting their offices. Out of them, 70 (17 from private sector, 20 from public sector, 26 from financial sector and 7 from academic/research organization) completed questionnaires were returned after giving some of the participants reminders over phone calls and/or email. Of them, 68 responses were considered valid (see table 2).

This number represents 62 percent of the total eligible PPP experts in the country, which represents an extremely robust participation for a particular country like Bangladesh.

Table 2. Summary of the Respondents by Sector

Sector	Percent	Valid responses
Transport	25	17
Power and energy	35	24
Hospital	6	4
Housing and accommodation	7	5
Water	1	1
Commercial zone	10	7
Tourism	3	2
Academics	6	4
PPP Authority	6	4
Total	100	68

A further break-up of the respondents with respect to experiences and stakeholder groups has been presented in the figure 2 and 3.

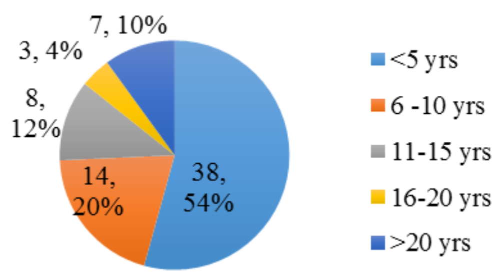


Figure 2. Respondents by Experiences.
Source: Hossain et al. (2018)

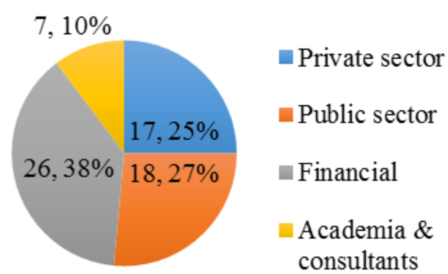


Figure 3. Respondents by Stakeholder Groups.
Source: Hossain et al. (2018)

Performance Indicators of PPPs in Developing Countries

Once weights of the sub/indicators are derived for each of the three levels of the hierarchy, the global weights for them is determined by synthesizing the weights of the different levels. Out of the forty-one, the top nineteen indicators: five from the KPA F (see Figure 1 for elaboration of KPAs), four from each of the three KPAs (TA, PI and PR) and the remaining two from each of the two KPAs (OP and SS) are taken into consideration for our discussion. The list of the sub/indicators with their weights is enumerated in Table 3 while indicators with weights greater than the mean weight (>0.02) are considered for comparative analysis and presented in Figure 4.

As Table 3 shows, the FA (weight 0.05) is the most important indicator responsible, in developing countries such as Bangladesh, for assessing the performance of PPPs. This is followed, in order of the relative importance of the top ten indicators by LCEM (0.05), ORA (0.04), RC (0.04), PG (0.04), IL (0.04), FC (0.03), Qa (0.03), IA (0.03) and Qs (0.03). An F-test has also been performed to test whether the variances of the weights by respondent groups are significantly different for the highest ranking indicators. A one-way repeated ANOVA reveals that there are no statistically significant differences among the four expert groups when judging the relative importance for the top eighteen indicators (at one percent significance level). The F-values for them ranged from 0.19 (with a p-value of 0.90) to 3.60 (p-value of 0.02) for a significance level of 0.01.

Table 3. Local and Global Weights of Performance Indicators (including KPAs) with Consistency Ratio (CR) and Geometric Consistency Index (GCI)

Level 1		Level 2		Level 3		Global[⁊] weight (7)[ϕ]	Overall Rank (8)	CR	GCI
KPAs (1)	Weigh* (2)	Indicator (3)	Local weight* (4)	Sub-indicator (5)	Local weight* (6)[ϕ]				
Planning and Initiation (PI)	0.16(2)							0.01	0.03
		Needs Assessment (NA)	0.19(3)			0.03	11		
		SMART Objectives (SO)	0.14(5)			0.02	20		
		Implementability Assessment (IA)	0.19(2)			0.03	9		
		Feasibility Analysis (FA)	0.31(1)			0.05	1		
		Public Interest Test (PIT)	0.16(4)			0.03	15		
Procurement (PR)	0.11(4)							0.00	0.00
		Efficient Concessionaire Selection(ECS)	0.23(4)			0.02	19		
		Selection Criteria and Method (SCM)	0.27(1)			0.03	12		
		Fairness and Transparency (FT)	0.26(2)			0.03	14		
		Standardised Contract (SC)	0.24(3)			0.03	18		
Operation (OP)	0.10(6)							0.00	0.03
		Cost Consideration (C)	0.16(3)			0.02	31		
		Time Consideration (T)	0.15(5)			0.01	34		
		Quality of assets (Qa)	0.31(1)			0.03	8		
		Life Cycle Maintainability (LCM)	0.22(2)			0.02	21		
		Dispute Settlement (DS)	0.15(4)			0.01	33		
Sustainability of Partnerships (SP)	0.10(7)							0.01	0.05
		Trust and Respect (TR)	0.14(5)			0.01	36		
		Relationship Dilemmas (RD)	0.08(6)			0.01	39		
		Private Sector Knowledge and Skill (PrKS)	0.20(1)			0.02	25		
		Public Sector Capacities in Coordination (PuCC)	0.19(3)			0.02	27		
		Partners roles and Responsibilities (PRR)	0.17(4)			0.02	29		
		Project Sustainability (PrS)	0.20(2)			0.02	26		
Financing (F)	0.17(1)							0.01	0.04
		Optimal Risk Allocation (ORA)	0.25(1)			0.04	3		
		Financial Cost (FC)	0.20(3)			0.03	7		
		Payments and Government Guarantees (PG)	0.22(2)			0.04	5		
		Optimal Revenue Sharing (ORS)	0.17(4)			0.03	13		
		Government Liabilities (GL)	0.15(5)			0.03	17		
Transparency and Accountability (TA)	0.15(3)							0.04	0.14
		Integration of Locals (IL)	0.25(3)			0.04	6		
		Disclosure of Project Information (DPI)	0.17(4)			0.03	16		
		Life Cycle Evaluation and Monitoring (LCEM)	0.31(1)			0.05	2		
		Responsiveness of Concessionaire (RC)	0.26(2)			0.04	4		
Stakeholders Satisfaction (SS)	0.10(5)							0.00	0.00
		Partners Satisfaction(PS):	0.35(2)					0.00	0.00
				Meeting Objectives (MO)	0.21(3)	0.01	40		
				Vale For Money (VFM)	0.24(2)	0.01	38		
				Profitability (P)	0.20(4)	0.01	41		
				Efficient Risk Management (ERM)	0.35(1)	0.01	37		
		End Users Satisfaction(EUS):	0.65(1)					0.00	0.00
				Economy of services (E)	0.22(3)	0.01	35		
				Availability of services (A)	0.32(2)	0.02	22		
				Quality of services(Qs)	0.46(1)	0.03	10		
Socio Economic Development (SED)	0.09(8)							0.01	0.03
		PPP Sector Development (PSD)	0.17(4)			0.02	30		
		Innovation in Public Sector (IPS)	0.17(5)			0.02	32		
		Infrastructure Development (ID)	0.23(1)			0.02	23		
		Employment Generation (EG)	0.20(3)			0.02	28		
		Environmental Friendliness (EF)	0.23(2)			0.02	24		
Overall CR/Overall GCI								0.03	0.10

Recommended CR<0.10; GCI<0.37for n>4 (Dong et al., 2010).

**Denotes local ranking.* [ϕ] Global weights in column 8 except weights for sub-indicators are derived by multiplying local weights in column 2 and 4. Global weights for sub-indicators in column 8 are found by multiplying local weights in column 2, 4 and 6. Local weights in column 6 are calculated by multiplying weights in column 2 and 4. [⁊] Global weights are in two digits after decimal, the rank would be clear if four digits after decimal are counted.

However, statistically significant differences are found in weighting indicator DPI (with F (3, 64) = 4.40; p = 0.00) at the 0.01 significance level. At the 0.05 significance level, significant differences among experts are found in assigning weights to the indicators that included PIT, SCM and LCEM. The results of post hoc comparisons between groups show which pair of groups has significant different judgements. On indicators PIT, SCM and LCEM, private sector respondents differ significantly compared with public sector respondents while on DPI the earlier group differs significantly with academics. These differences might result from the different risk perception of the respondents. Ideally academics are considered more risk neutral (Yuan et al., 2009) and prefer a high level of disclosure of project information.

Comparative Analysis among Respondent Groups

As shown in the Figure 4, all expert groups assigned similar weights to eight indicators, weights ranging from 0.02-0.03 to 0.01-0.03. This eight includes (from the lowest ranges) Qs (with 0.02-0.03), followed by NA, ORS, IA, DPI, ECS, IL and GL (with 0.01-0.03). The closeness of these ranges indicates that expert groups have low differences of judgements when weighting these indicators. The height of the lines in Figure 4 signposts the range of the weights assigned by different groups for each of the indicators. The next eight indicators in terms of ranges of weights comprise RC, SC, Qa, FC, SCM, FA, FT and PIT. The weight ranges are from 0.03-0.05 to 0.01-0.04 for this group. For determining their relative weights, experts have shown greater variability for this second group of indicators compared to the first eight and this can be observed by the height of the lines in the Figure 4. For the weighting of the last group of three indicators, experts have shown even further dispersion, ranging from 0.02-0.06 (for PG) to 0.03-0.07 (ORA). For the middle one (LCEM), the range of weights is 0.03 to 0.07.

Public sector experts think that ORA is the indicator with the highest weight when measuring PPP performance, followed by FA, SCM, PIT and FC among the top ten. By contrast, private sector experts weighted LCEM as the most important, followed by PG, FA, RC and FC. Of the finance and academic groups, finance experts assigned the highest weight to IL followed by LCEM, FA, RC and Qa among the top ten. Unlike them, academics provided the highest weight to FA, shadowed by LCEM, FT, RC and IL.

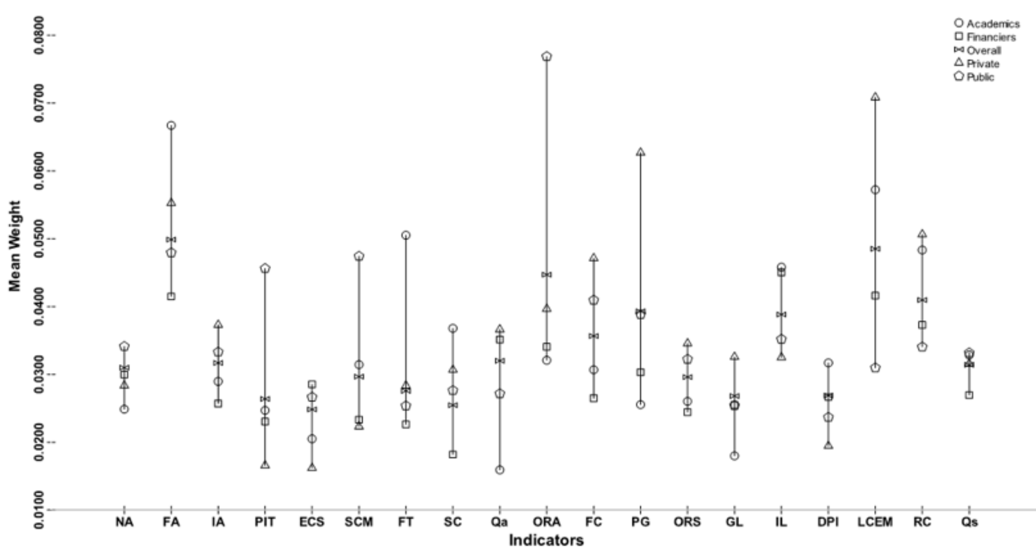


Figure 4. Weight Ranges of Top 19 Indicators (Mean Weight > 0.02) by Different Expert Groups
Source: Hossain et al., (2018)

NA: Needs assessment; FA: Feasibility analysis; IA: Implementability assessment; PIT: Public interest test; ECS: Efficient concessionaire selection; SCM: Selection criteria and method; FT: Fairness and transparency; SC: Standardized contract; Qa: Quality of assets; ORA: Optimal risk allocation; FC: Financial cost; PG: Payments and guarantees; ORS: Optimal revenue sharing; GL: Government liabilities; IL: Integration of locals; DPI: Disclosure of project info; LCEM: Life cycle evaluation and monitoring; RC: Responsiveness of concessionaire; Qs: Quality of services.

Reliability Testing

An acceptable consistency ratio shows the reliability of the judgement made by the respondents. $CR < 0.10$ is the recommended acceptability threshold in the standard case of pairwise comparisons (Saaty, 1990). In this study, the collective CR generated by all respondents is 0.03 (see Table 3), which is less than the recommended ratio while group wise CR ranges from 0.02 to 0.10. The collective GCI of 0.10 (< 0.37) (Dong et al., 2010) also confirmed the reliability of the transitive ordering of the preferences for our sample of respondents.

Conclusion

Although the use of performance indicator system in assessing PPP performances is obvious, no research has yet been performed to develop weights for performance indicators by applying AHP in a developing country context. By contrast, the research focused on in this paper has established weights for forty-one performance indicators and identified a different set of top ranked indicators for the developing countries (see Table 3 for details). AHP (a multi-criteria decision model) has been applied in assigning these weights to the indicators. A large number of experts (see section for details) participated in a structured questionnaire survey based on their Bangladesh experience, and their pairwise comparison for the indicators have been found to be consistent, using consistency ratios, a geometric consistency index. Furthermore, a one-way ANOVA reveals that there are no significant differences in four groups of experts in weighting performance indicators. The resultant forty-one weighted performance indicators and an innovative set of top ranked indicators represent major contributions to the literature on PPP performance indicator system in the developing countries. These results suggest that performance indicators are different (unlike e.g. cost, time and quality) for developing countries. This has important policy implications for PPP units and project sponsors responsible for successful implementation (including performance measurement) of PPP programs in Bangladesh. Experts are selected from only one developing country. A wider representative sample from more developing countries around different regions might be useful for these differing results to be further verified. Although this study is based on Bangladesh context, the weight developed in this study could be applied in the context of other developing countries, and even advanced countries – with a comparative analysis of differences in weights across different nations and levels of development representing a fruitful area for further research.

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PRODUCTIVE LINKAGES POLICIES: COSTA RICA AND THE DOMINICAN REPUBLIC REVIEW OF LITERATURE

Luis Camacho, Empire State College, USA
Velia Govaere, Universidad Estatal a Distancia, Costa Rica

This study offers both a holistic and a specific view of the performance of the political tools of the productive linkages programs, their results, its status, and priorities, with the aim of strengthening this productive tool and remedying its shortcomings. Productive linkages programs are mechanisms of convergence between high competitiveness and innovation export companies and SMEs. The design of these programs seeks to improve the capabilities of domestic firms. Free Trade and Foreign Direct Investment in Costa Rica and the Dominican Republic, have stimulated and modernized the economy, the public administration and the society as a whole. However, they have also inserted dysfunctionality into their productive, economic, social, and territorial environment, creating contradictory situations. These imbalances point to the need for a holistic reframing of the model, through corrective public policies, such as the ones studied in this paper, in order to assess how they respond to the serious productive imbalance and foster the domestic capacities of SMEs. Commentary narrative overview of literature was the method used and all findings of literature have been retrieved from searches of computerized databases, hand searches, and authoritative texts.

Introduction

The performance of a country's competitiveness is measured by its participation in the global market (Lall & Chakravorty, 2005). Globalization determines this conditioning to international trade, referred to as the global integration of technology, finance, production (in global value chains) and markets. Emerging countries are compelled to achieve productivity standards imposed by developed countries, with whom they interact both in open competition and in linking their production, to participate in the world economy (Op. Cit). For more than three decades, Costa Rica and the Dominican Republic have designed and implemented public policies of trade openness and attraction of Foreign Direct Investment (FDI), in order to incorporate their economies into globalization (Martínez & Hernández, 2102). These policies have been instrumental in fostering their exports' structural transformation (ECLAC, 2014), although their success in attracting FDI and diversifying exports do not correlate to the inconspicuous productivity performance of their endogenous productive capacities (ECLAC, 2014).

This situation, along with multiple well-known and widely analyzed market failures (Monge & Rodríguez-Álvarez, 2013; Salazar-Xirinach, Nübler & Kozul-Wright, 2014), produces the need of designing and implementing specific public policies for productive development (Paus, 2014), in which linkages are critical factors for which endogenous productivity develops a convergence process with the international productivity. The productive linkages are an expression of sophisticated manufacturing processes, determined by the degree of specialization of the division of labor between the different production phases, innovation and the resulting links between the companies (Gereffi, Bamber, Frederick & Fernández-Stark, 2012; Hausman, Hidalgo, Bustos, Coscia, Simones & Yldirim, 2014).

The productive linkages also express the complexity of an economy. According to the Economic Complexity Index (op.cit), Costa Rica ranks 49 out of 128 countries, being the third best-performing economy, due to its complexity, in Latin America. The Dominican Republic ranks 64. However, this complexity is mainly related to the production of MNEs, in sharp contrast to the productive apparatus destined for domestic consumption. As a result of a process of incorporation into international trade, FDI has generated the presence of Multinational Enterprises (MNE) in both countries, which has determined the coexistence of MNEs and local companies with different degrees of technological development. This productive and competitive duality is also expressed in the differentiated productivity performance between large companies and SMEs, and between multinational and local companies (Beverinotti, Coj-Sam & Solis, 2015; ECLAC, 2014; Martínez & Hernández, 2012). It is necessary to promote a convergence of production process between large companies and SMEs, and between national companies, between those that produce for the local market and between those that produce to export. Several studies have shown improvements in the competitiveness of SMEs when linked to exporting companies. The most recent (Sandoval, Monge, Vargas and Alfaro, 2018) shows these improvements in both manufacturing and service sectors, thus contributing to promote a convergence of competitiveness. Since FDI is a decisive factor in these two economies, the development of linkages between MNEs and local SMEs is crucial to improve the national spillovers of MNE's productivity (Monge-González, González, Mulder, Orozco & Zaclicever, 2016; 2015; OECD, 2016).

For emerging countries, FDI is a decisive economic factor that helps to balance national accounts and should produce technological transference, labor training and stimulate the domestic business network (Kang, 2015). FDI also strengthens endogenous productive capacities by adding value to the national MNE's production through productive or service chaining (Paus, 2014). However, the dynamic linkage between MNE and local companies is not produced by automatism of economic forces, as Paus (2014) warns, utilizing the case of Costa Rica: "There is nothing automatic in FDI's technological spills, and Costa Rica has not done the task to the necessary extent" (p.182). Monge et al. (2016), Salazar-Xirinach, Nübler, I. and Kozul-Wright (2014) and Paus (2014) state that the "market failure" make the linkages between the domestic production and the MNE difficult, highlighting the convenience of public policies focused on that purpose.

Costa Rica and the Dominican Republic abandoned unsuccessful interventions from the Government, switching from industrialization policies to Import Substitution (IS). In contrast to what happened in Southeast Asia (Martínez & Hernández, 2012; Monge, 2015), Latin American countries felt into market failures due to excessive market forces confidence (Washington Consensus). Specialists have established the need for Government involvements in productive policies, which serve as a complement to the promotion of national competitiveness, to policies to attract FDI and market opening influenced by the paradigm of globalization. More and more authors recommend countries to adopt productive policies focused on local benefits, ensuring that the operations of MNE in the territory are linked to the national productive sector (Govaere, 2013 a).

According to the trade opening and FDI attraction policies, productive linkages public policies are more recent and are outside from any political priority (Paus, 2014). Academic sectors, especially in Costa Rica, have been warning about socioeconomic dangers related to dualisms in the productive development, their impact on social inequality and the need for public policies to counterbalance these tendencies, as it has been consistently held by the State of the Nation, a think tank for public universities in Costa Rica. Hence, there is an increasing institutional political concern to promote broader productive linkages in relatively less developed areas (Martínez, 2012), and SME to the export effort (Monge & Rodríguez-Álvarez, 2013). This commentary narrative overview of literature will address the most recent impacts and results of public policies that seek to promote convergences through state programs that promote productive linkages in order to achieve a better performance of SMEs (ECLAC, 2014), as well as their limitations, challenges, and lessons learned.

Methods

The authors selected the commentary narrative overview of literature as methodology, which summarizes different primary studies from which conclusions may be drawn into a holistic interpretation contributed by the reviewer s' own experience, existing theories and models (Campbell Collaboration, 2001; Kirkevold, 1997). According to Jones (2004), one of the strengths of this type of method is the ability to comprehend different perspectives around scholarly research topics and the opportunity to speak with self-knowledge, reflective practice, and acknowledgment of shared research phenomena. The authors followed what was stated by Green, Johnson & Adams (2006: 103), "commentaries narrative literature reviews are typically written with a particular opinion being expressed. In short, a commentary is a biased narrative review that draws upon the wisdom of the commentator. Usually, the purpose of a commentary is to provoke scholarly dialog among the readers of the journal". This commentary narrative literature review seeks to answer the following questions (1) What have been productive linkages public policies in Costa Rica and the Dominican Republic? (2) Are there recent successful initiatives, in both countries, which can be considered for replication by other emerging countries? (3) What have been their impacts and challenges in both countries?

Inclusion and Exclusion Criteria

The commentary narrative overview of literature includes studies from the last fifteen years (2003–2018), quantitative and qualitative studies have been considered in the English and Spanish languages only and focuses on productive linkages public policies. It was specific to successful initiatives and challenges in Costa Rica and the Dominican Republic. We searched ABI/INFORM, BCRD, Central ScienceDirect, EBSCO, ECLAC, GEM, Google Scholar, OECD, ProQuest, PROCOMER, The World Bank e-library, and World Bank: Global Economic Monitor. A keyword search of abstracts was conducted using the following search terms: Free Trade, Foreign Direct Investment, Productive Linkages, SMEs, public policies, productive policies. After screening article titles and abstracts against the inclusion criteria, the papers that remained were included in the review (Newhill and Wexler, 1997; Regehr, Hemsworth, Leslie, Howe & Chau, 2004; Shin, 2011).

Discussion

Regional competitiveness and productive linkages tend to change based on the particular behavior of their actors through innovation. According to Lundvall and Johnson (1994), innovation results in a system of internal interactions –forward and backward linkages– between different functions and distinct actors, in which experience and knowledge are mutually reinforced and accumulated. Thus, the systematic approach provides new expertise in the innovative and economic performance of the territories. Diffusion of knowledge is a central factor as a cause of endogenous growth (Romer, 1990, 1986) and geographic agglomeration of firms (Audretsch & Feldman, 2004, 1996).

Technological Change as a Determinant of Economic Growth

For a long time, technological change has been considered the most important type of innovation. Additionally, one of the significant differences observed was the increasing general level of education of the labor force. At the beginning of the XXI century, we observed a theoretical and empirical consensus about the sources of growth. First, the improvement in per capita income is the result of the production factors evolution, which is directly related to investments and their profitability. Second, the innovation in economic activities, which lead to the investment and diffusion of knowledge as a base for technological progress. Globalization has led to a dramatic increase in firms' opportunities to have access to information and new markets. It has also resulted in greater international competition and new organizational forms in order to manage global supply chains. As a consequence of advances in technologies and greater flows of information, knowledge is increasingly viewed as a central driver of industrial development, innovation and economic growth (Ford, Rork & Elmslie, 2008). Knowledge, as a resource, is economically relevant in economic activities. This substantial increase of the knowledge existing in the economy must be related to the rise of the observable knowledge used in the economic activity and the transformation of tacit knowledge into explicit/observable knowledge. Also, the changes in the requirements of abilities and experiences that the present economy demands from the labor force. The economic use of knowledge as a productive factor, including the use of information and communications technology (ICT), and the use of explicit knowledge as a commodity, leads to a structural change in the economy. This change defines the transition to a new type of economy, where this resource and commodity is a source of productivity and competitiveness and, therefore, of growth and development.

System Models for Productive Linkages

In order to establish a correct conceptual framework to evaluate productive linkages in Costa Rica and the Dominican Republic, the concepts of a national system of innovation have been adopted (Edquist y Mckelvey, 2000; Freeman, 1987; Lundvall,

Table 1. Levels of Analysis for Innovation Systems Related to Productive Linkages

Level	Type of analysis	
Micro	Analyses of the internal capacities of the firm and the linkages of one or few firms.	
Meso	Sectoral or industrial clusters	It includes suppliers, research and education institutes, markets, transport, governmental specialized agencies, financial and insurances organized around a common base of knowledge.
	Regional clusters	Analysis that emphasizes local factors behind highly competitive geographic agglomerations of knowledge-intensive activities.
	Functional clusters	Analysis that use statistical techniques to identify groups of firms that share certain characteristics.
Macro	Macro clustering	Analysis that considers the economy as a net of sectoral interconnected clusters; all clusters of an economy are identified and analyzed.
	Functional analysis	Analysis that considers the economy as a net of institutions and creates maps of the links of knowledge among them. It involves measuring different kinds of knowledge flows: interactions among firms; interactions among firms and research institutes universities; other interactions that support innovations (financial, technical training, engineering services, etc.); technological diffusion; mobility of personnel.

Source: OECD (1999:24).

Johnson, Andersen & Dalum, 2002; Nelson & Rosenberg, 1993). Porter (1990) added essential contributions to the innovation system approach. He concluded that innovation and technological change are primary factors to create sustainable advantages in the long term. According to Porter, such advantages are national and regional more than international or global. Table 1 shows the three levels of analysis that must be considered in innovation systems attached to productive linkages (OECD, 1999:24):

Figure 1 depicts the conceptual model, which is an integration of factors from the actors and linkages in the innovation system OECD (1999), and the Arnold & Kuhlman (2001) generic national innovation system. The adjusted model can be divided into five levels of analysis: (1) knowledge generations & diffusion which integrates firms capabilities, applied research from private and public sector and supporting institutions; (2) the national and international demand; (3) linkages options (clusters, industrial districts, free zone parks and technological parks), and interregional and regional linkages; (4) the national innovation capacity; and (5) the macro environment which includes economic and regulatory factors, communication, product and market conditions, the educational and training system. The interrelation of all those factors and levels support the country performance, growth, jobs, productive linkages and competitiveness.

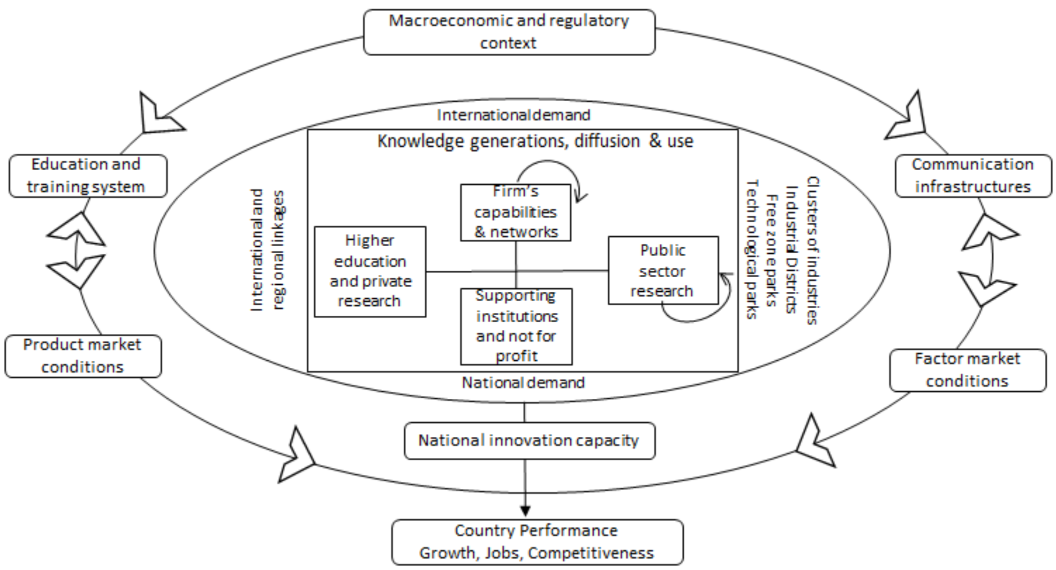


Figure 1. Conceptual Model

Source: adapted from the actors and linkages in the innovation system (OECD, 1999), and the generic national innovation system (Arnold & Kuhlman, 2001).

Productive Linkages Policies in Costa Rica

Costa Rica's development model is considered exemplary in the region. "In the last three decades, Costa Rica's development has been partly sustained by advances in the dynamism and quality of its participation in international trade" (ECLAC, 2014: 13). The public policies that prioritize trade opening and attraction of foreign direct investment (FDI) have created, after three decades, a positive balance of structural transformation of its productive apparatus, especially the part that is linked to exports: (1) 10 percent annual growth in exports in the last 20 years; (2) the most diversified exports in Latin America, with more than 2,392 business exporting more than 4,300 products to 151 destinations (COMEX, 2016); (3) participation in five high-technology global value chains; and (4) a sustained FDI flow, considered impressive by the OECD, which has increased by up to 13 percent annually in the last decade, which has led to the situation where 35 percent of Costa Rican manufacturing exports are high-technology.

Half of Costa Rica's exports have their origin in installed FDI under the free zone regime, which a marked orientation toward medium- to high-tech manufactures. However, FDI does not have a great impact on the modernization of the local productive fabric (Paus, 2014), and the productive processes that are linked to exports of MNCs are concentrated in the tiers of manufacturing and assembly that are intensive in scale and in unskilled labor (Govaere, 2013 b) with low technological content. By 2010, PROCOMER warned that every seven dollars of value exported corresponded to only three dollars of national value added, concentrated, according to its quadrennial analysis, in assembly processes and with local supply chains, especially logistics, transport, and packaging (PROCOMER, 2010).

A commentary by ECLAC (2014) that studies linkages to global value chains warned that, despite successful public policies in trade opening and attraction of FDI, Costa Rica exhibits a lower level of domestic linkages than countries such as Mexico, Brazil, or the Dominican Republic, with the internationalization of small and medium-sized enterprises (SMEs) a pending challenge. "…the localization of large international companies, which has contributed significantly to value added but less so to employment because of their scant linkages, has taken precedence. To achieve a more inclusive export development, it is necessary to incorporate more local businesses into the internationalization, whether as direct exporters or as suppliers to exporting companies." (ECLAC, 2014:46).

The importance of supply chains is underscored by unpublished data that shows that local firms have increased from 8 to 12 percent in productivity when they become providers of FDI (Francisco Monge, 2018). The institutional authorities have tried to improve the level of integration of local providers with MNCs, developing programs that link SMEs to exporters, in a limited and not always successful fashion. In 1998, the Local Industry Improvement Program and the Business Linkages Support Program were created. Both failed, but they were the immediate precursors of the IDB Project "Costa Rica Provee," which began in 2001. This was the first program aimed at increasing the value added of local suppliers in the exports of MNCs. Its impact has been evaluated by Monge-González and Torres-Carballo (2013), who showed that the participating companies improved their sales, revenue, competitiveness, and productivity. A year later, Monge-González & Torres-Carballo (2014) proved that the fact of linking themselves with multinationals increased the growth rate of the local Costa Rican companies by up to 19 percent and their productivity grew by up to 4 percent. However, this program addressed only one aspect of the market failures, which was information asymmetry between the demands of MNCs and the possible supply of local firms. Costa Rica Provee "helps to identify the actual demand for inputs and intermediate goods by MNCs, and searches for possible suppliers (business matchmaking)."

In 10 years (2001-2011), "Costa Rica Provee" helped link 403 local providers with MNCs, which could be considered a certain degree of success. However, its impact was very small, since it represented only 4 percent of the firms supplying MNCs in that period (Monge-González & Torres-Carballo (2013). In 2012, Costa Rica Provee was institutionalized and under the Foreign Trade Promotion Program (Promotora de Comercio Exterior-PROCOMER), it became the Directorate of Productive Linkages. This did not, however, lead to a real scaling up of national priorities in public policy in the area of productive supply chains of local companies with exporting companies. Eva Paus (2014) cautioned, with respect to this Directorate, that a staff of seven officials, with a budget of less than $500,000, is completely inadequate to effectively promote national capacities (Paus, 2014). Amid this relative lag, we can point to three areas where there have been recent advances:

More Institutional Support

In the last year (2017), new staff have been recruited and support staff have been trained to be exclusive and specialized promoters. Medical devices, advanced manufactures, logistics, information and communication technologies (ICTs), and the agriculture sector have been prioritized. This effort of individualized attention makes it possible to improve knowledge of the demands of FDI and the range of products and services provided by possible national suppliers. Although it is more specialized, this level still does not surpass the level of support of the information between the suppliers and the demand of MNCs.

Better Institutional Linkage and Outreach

Starting in 2014, Costa Rica designed the National Plan of Productive Supply Chains, a road map undertaken by an ad hoc commission, to link the various actors involved, from the government, academia, and the productive sectors. Its most important achievement has been the application of ECLAC's supply chain methodology, in relatively less developed and communities that are more remote from urban centers. In this context and in a pilot plan, along with academia, governmental institutions and with the support of ECLAC and CRUSA, productive SMEs in papaya and derivative products of beehives have managed to link themselves and develop new products with value added. In this respect, the head of the project believed that not only were two new productive supply chains developed outside the metropolitan area and new products developed, but also institutional capacities were strengthened. "In ECLAC, we believe that Costa Rica now has a method to strengthen value chains, which together with improvements in commercialization processes, can yield new products, marketing approaches, methods of distribution, and even new markets (Martinez, Director of Trade and Industrial Policy, ECLAC, interview, 2017).

Improvement in Local Capacity for Linkage.

One of the lags that most affected and continue to affect businesses today is the relative scarcity of quality certifications, which restricts their linkages and limits their supply and export capacity. "… many businesses cannot link with others because of the lack of an ISO 9001, a basic requirement for their linkage with larger companies... whose cost was $50,000, and there is no financial supported budgeted to help them obtain it." provided by any credit entities in the country." (Rolando Dobles, Director of Productive Linkages, interview, June 2014). This program of institutional support is the first intervention by the State in structural financial aspects to support supply chains. To resolve this weakness, Costa Rica took advantage of the resources of the IDB under the Innovation and Human Capital for Competitiveness (PINN) with non-reimbursable funds to offer financing to national SMEs to certify themselves. Fifty-two SMEs were selected. Half are in the process of implementation and 7 percent have acquired the certification. Half of the companies enrolled in this program needed the basic ISO 9001 certification, and a third needed the FSSC 22000 certification, which is specific to the agri-food sector. Forty-seven percent of the funds were allocated to SMEs in the industrial sector, 25 percent to SMEs in the services sector, and 25 percent to agri-food SMEs.

As a result of having obtained certifications, ICT, logistics, and agro-industrial companies are able to link or export (Valverde, Director of Productive Supply Chains, interview, February 2018). Thanks to the certifications, a SME that produces hydrants for firefighters now exports to Panama; another one was able to link to the space sector, and an SME led by women in a rural area designs software with offices now in El Salvador and Panama. In a second phase, another 50 SMEs are about to join this initiative, this time with funds from the CABEI (BCIE). The most exhaustive and recent institutional report shows the positive correlation between the improvement of the productivity of SMEs and their linkage with the FDI, in Costa Rica. It is concluded that "the local supplying firms increased their productivity compared to those that did not have business relations with foreign-owned firms: in the manufacturing sector, on average, 8.0%; in the services sector, on average, 6.4%". (Sandoval, Monge, Vargas and Alfaro, 2018). The studies carried by Costa Rican authorities confirm "…the need to deploy a more ambitious and comprehensive public policy agenda for promoting the emergence of lasting linkages between local and FDI firms". (op. cit)

Productive Chain Policies in the Dominican Republic

The Dominican Republic has been transforming the base of its economic structure during the last decades, going from an agriculture and mining based structure, to an economy with a diversified productive base, both in its industries and products. This diversification has impacted the country's economic growth, one of the strongest in Latin America and the Caribbean in the last 25 years, expanding the economy by 4.6% in 2017 with economic growth projections of 5.1% for 2018 (ECLAC, 2018). However, the primary drivers for this growth and diversification in recent years have been private consumption, investments and services in general.

According to the statistics provided by the Central Bank of the Dominican Republic (BCRD), presented in Table 2, the flow of FDI to the Dominican Republic has had a significant recovery in 2016 and 2017, exhibiting a growth of 9.2% and 48.3% respectively (BCRD, 2018). Most of these investments have been directed to tourism, mining and Free Trade Zones (ZF). FDI has been propelling the important economic activity in the Free Zones (FZ), which are used mainly as an export platform to assemble products for sale in the US market.

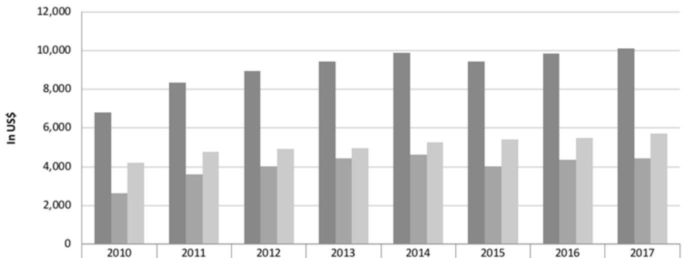
Table 2. Foreign Direct Investment in the Dominican Republic 2012-2017 (in millions of US$)

Indicators	2012	2013	2014	2015	2016	2017
Foreign Direct Investment	3142.4	1990.5	2208.5	2204.9	2406.7	3570.0
Absolut Variation FDI		-1151.9	218.0	-3.6	201.8	1163.3
Variation % FDI		-36.7	11.0	-0.2	9.2	48.3

Source: BCRD (2018)

The Dominican Republic has been a pioneer country in the development and promotion of the FZ concept around the world, accumulating more than 40 years of experience. Although this industrial concept is well known as a promotional tool to attract FDI, very few countries have used this successful industrial strategy in order to create a new and innovative job offer and boost economic growth like the Dominican Republic (Burgaud & Farole, 2011). Free Zone exports accounted for more than half of the total export value between 2006 and 2014.

Although the ZF system in the country has been one of the leading engines of Dominican economic growth, there is no specific information related to its help in creating or improving productive linkages between free zones and domestic companies (Kaplinsky, 1993). According to Manzano, Richaud, Agüero & Sánchez (2013), this lack of productive linkage in the last decades was due to a low added value to export products. FZ industrial activity is based on low wages and unskilled labor and importing almost all inputs for the industrial processes of these companies. The importance of FZ for the Dominican economy has been significant over time (Reyes, Bordas & De la Paz (2017). Figure No. 1 exhibits the Dominican Republic exports from 2010 to 2017 and the importance of FZ. However, it is notable that in the country there is a segmented economy. Therefore, an industrial sector with a high added value that operates within the FZ system and a low value-added sector that develops its industrial activities outside the existing FZ parks in the country (Sánchez-Ancochea, 2012). The first group specializes in industries such as clothing, footwear, medical devices and jewelry, while the second group specializes in products based on resource exploitation, such as minerals (gold, ferronickel) and agricultural products (World Bank, 2017).



	2010	2011	2012	2013	2014	2015	2016	2017
Total	6,816.00	8,361.90	8,935.50	9,424.40	9,898.90	9,441.80	9,860.30	10,120.70
National	2,621.60	3,594.80	4,016.60	4,448.00	4,637.20	4,018.20	4,366.40	4,426.00
Free Zones	4,194.40	4,767.10	4,918.90	4,976.40	5,261.70	5,423.60	5,493.90	5,694.70

Figure 2. Dominican Republic Exports 2010-2017
Source: BCRD (2018)

This industrial segmentation influences negatively on the creation of productive chains in the Dominican Republic because Dominican FDI companies import around 70% of their inputs. Therefore, not buying raw materials and components from domestic producers, limits the transmission of knowledge and changes in the business culture and competitiveness of the local manufacturer (World Bank, 2015). Another likely interpretation of this phenomenon is that the wealth generated by the exports of companies that operate under the FZ system are owned by FDI, constraining the productive chains with other sectors of the Dominican economic and industrial environment (World Bank, 2017). The Dominican Republic is promoting productive chains and improving national competitiveness. The country has been involved in developing reforms in policies and the industrial sector that seek to transform the general business environment in the country. Here are some examples:

National Systemic Competitiveness Plan (NSCP)
The NSCP is composed of fifteen (15) chapters that include specific diagnoses and strategic proposals of the main productive sectors of the country to improve their competitiveness. In this NSCP, the figure of productive clusters is highlighted as one of the bases in creating productive chains and increasing national competitive performance.

Law No. 392-07 on Competitiveness and Industrial Innovation
This law aims to structure an institutional framework and a regulatory body that allows the development of competitiveness of the manufacturing sector. This law proposes policies and support programs that encourage renewal and industrial innovation in order to achieve greater diversification of the national productive sector. This law pursues the creation of industrial chains through the promotion of districts and industrial parks and the linkage to international markets.

Creation of the Industrial Development and Competitiveness Center (PROINDUSTRIA)
This institution assumes innovation as the main component in order to improve productivity in industrial processes, products and services stimulating the transfer of knowledge, innovation and technological development of the manufacturing industry through research and development.

Law No. 1-12 National Development Strategy 2030
This strategy aims to print a change in the development model, through four strategic axes. The third one is focused on providing a sustainable, inclusive and competitive economy. Specifically, its general objective 3.5 highlights the following: sectorial and territorially articulated production structure, competitively integrated into the global economy and taking advantage of local market opportunities (MEPyD, 2012:26).

Companies belonging to FDI in the Dominican Republic maintain the tendency of being part of connections with more sophisticated global production networks. This indicates that there is little productive chain activity with the national industry, both in the ZF parks and those outside. Engel, Reyes, and Sánchez (2016) calculated the domestic added value incorporated to exports of industrial sectors that operate mostly within FZ, using data from the national accounts for the period 1993-2010. The authors addressed the issue of backward chains, measured mainly by the source of inputs. Among its findings, the following can be cited: a) parent companies or affiliated companies outside the Dominican Republic provide 81% of the raw materials used by companies located in FZ; b) the rest of the domestic inputs are divided between 7 percent of inputs purchased from Dominican companies outside FZ, and 12 percent within them.

There is very little linkage between manufacturing companies in ZF in the country, resulting in very few forward linkages which do not contribute to the benefit and growth of the domestic economy. The few companies that sell their products to FDI companies and FZ zones are mostly service companies, not manufacturing companies.

The Current Reality of Productive Linkages in the Dominican Republic

Following the signing of the free trade agreement DR-CAFTA, on the framework of the USAID Project for the Implementation of DR-CAFTA, Reyes & Díaz (2010), led a study aimed to analyzing the production and business characteristics of the signatory countries of the agreement. The study had an in-depth analysis of the different sectorial chains that are evident in the Dominican Republic with the production of exportable goods to DR-CAFTA, as well as the sectors in those countries can be linked to produce exportable goods. According to Reyes & Díaz (2010), productive chains can be materialized taking into account two central schemes: a) between national companies, participating in different production segments, until a finished product is achieved; and b) between Dominican and Central American companies, participating in various production segments to generate a final product (p.8). One of the virtues of this type of chain is that it accommodates the relationship between large companies and SMEs, both with Dominican companies and with international companies. In table No. 2, research findings of Reyes & Díaz study (2010) can be observed. The authors identified seven production chains in the product input matrix of the Dominican Republic. The primary and manufacturing sector contributed five, and the service sector two.

Table 3. Production chains in the Dominican Republic

Result of the analysis of production chains	
Production Chain 1	Traditional export crops; Livestock, forestry and fishing; Production of other food products (free zones)
Production Chain 2	Other crops; Manufacture of rubber and plastic products; Other manufacturing industries (national); Other manufacturing industries (free zones)
Production Chain 3	Exploitation of Mines and Quarries; Financial Intermediation, Insurance and Related Activities; Public Administration and Defense; Social Security
Production Chain: 4	Sugar Processing; Production of Other National Food Products; Preparation of National Drinks and Tobacco Products
Production Chain: 5	Preparation of Beverages and Tobacco Products Free Trade Zones; Manufacture of Leather Articles and National Footwear; Manufacture of Articles of Leather and Footwear Free zones; Petroleum refining; Manufacturing Other Non-Metallic Mineral Products
Production Chain 6	Energy and Water; Building; Hotels, Bars and Restaurants; Transportation and Storage; Communications
Production Chain 7	Business Activities and Other Real Estate; Market teaching; Teaching not Market; Health not Market; Other Services Activities

Source: Reyes & Díaz (2010:112)

Conclusions

The findings and the examples presented confirm the conclusions generally accepted in the literature, according to which public policies counteract market failures because they are fundamental for promoting a better development of productive linkages. (Monge-González & Rodríguez-Álvarez, 2013; Paus, 2014; Salazar-Xirinach, Nübler, & Kozul-Wright, 2014). The lack of a state policy, beyond specific programs, in the area of productive linkages, translates into low financial and human resources and weak linkages, which in turn leads to low national value added in exports. (ECLAC, 2014; Monge, 2013; Monge-González, González, Mulder, Orozco & Zaclicever, 2016; Paus, 2014).

Neither Costa Rica nor the Dominican Republic have state production promotion policies that support productive linkages on a grand scale. However, in Costa Rica, specific linkage programs and initiatives have had a strong positive impact on the productivity of the participating businesses, both in services (6,4%) and manufacturing (8%), as shown by the case studies cited by Monge-González & Torres-Carballo (2014) and Sandoval, Monge, Vargas & Alfaro, 2018). The small scale on which the existing programs have been applied has had a very low aggregate impact. To achieve a more substantial impact in terms of local linkages, increase in value added and participation in global value chains, they should become priority policies of the State, with their corresponding national scaling up (; Chaverri (2016); ECLAC, 2014; Monge et al., 2016).

The public productive linkage policies should approach market failures in a more integrated fashion (i.e. financing, investment in R & I & D, capacity building, etc.) as shown by the success of the few Costa Rican initiatives that go beyond the existing "business matchmaking" programs in Costa Rica (Costa Rica Provee). In the Dominican Republic, there is at least promising awareness of the need to resolve information problems between supply and demand, reflected in a public-private agreement (Reyes, et al., 2017). There are still no business matchmaking programs. Linkages are the nucleus of development of the formation of value and the pillar of productivity policies of the State which, as such, should be institutionally approached in a uniform, integrated, and coherent way. A common weakness in both countries is the lack of a single entity, with the consequent multiplicity of public entities involved in productive linkages. The resulting duplication of effort impedes cohesive actions that benefit the productive sector as a whole and the more efficient use of resources.

While in the Dominican Republic there has been a history of regulatory differentiation of tax exemptions in the Free Zone regime, among businesses declared to be priority or non-priority, with the consequent requirements of export proportion, in Costa Rica this has not been the case. These distinctions and requirements have not had an impact on productive linkages (Reyes, et al., 2017), which are weaker in Costa Rica. There, despite institutional fragmentation common to both countries, in contrast to the Dominican Republic, there are programs, plans, and a commission specifically devoted to linkages. Both countries face evaluation of conformity with international standards (certifications) as obstacles to export linkages. As was shown in the Costa Rican example, financial support is starting to operate in this area, and the early results are positive. Productive linkages require joint efforts with academic research centers and technical training institutes to strengthen the capacity of human resources and improve the capacity to innovate. This new prioritization in the area of productive linkages should rely on better international practices, such as the cases of Uruguay, Chile, and Brazil (Govaere, 2013). Policies to attract FDI should incorporate, within their priorities, developing local capacity to link with it. For example, in Costa Rica, in 2011, the analysis of imports in the Life Sciences sector revealed opportunities for productive linkages only for 30 percent of its purchases. (Jorge Sequeira, Executive Director PROCOMER, interview, 2014).

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BEEKEEPING COMMERCIALIZATION IN TANZANIA THROUGH BUSINESS MODEL STRUCTURE: A CRITICAL REVIEW OF THE LITERATURE

Nicholaus Tutuba, Mzumbe University School of Business. Tanzania
Jasinta Msamula, Mzumbe University School of Business. Tanzania

Despite increasing investments in the beekeeping sector in Tanzania, the potential for its commercialization is not yet fully utilized. This study intents to analyze the business model structure as a platform for beekeeping commercialization in Tanzanian. The study uses a business model theory. This is an architecture of the value creation, delivery, and capture mechanisms. Business models are considered to serve to commercialize innovations, as they allow firms to capture value. Moreover, the study uses a qualitative literature review approach in which different works of literature covering business models [innovation], and beekeeping were reviewed. By using a content analysis approach, every content of the business model is analyzed to point out potential factors and building blocks that can be used to build an effective model for the beekeeping sector. Five business models are analyzed: cooperative, tripartite, collection center, warehouse receipt system, and contract farming. In conclusion, beekeeping in Tanzania is still operating through informal structures. However, to commercialize the sector a partnership model is proposed. Furthermore, since little has been written about the use of the business model to commercialize beekeeping activities, this study addresses this gap. It put forward a theoretical building block for business model structure in beekeeping sector.

Introduction

Business models (BM) have emerged as an important means of commercializing businesses. It is argued to provide the framework for a firm to create and capture value out of an innovative idea or technological development (Chesbrough, 2010; Teece, 2010). An innovative idea does not represent any value until it is commercialized via a BM. Similarly, technological development has no value unless it is commercialized (Schneider & Spieth, 2013). Therefore, BM have been considered as a focus on innovation (Vanhaverbeke, 2017). They are acknowledged as important drivers of business commercialization without which value created from innovation cannot be captured. The beekeeping business is no exception. Its innovation and technological development requires a BM to be commercial. Beekeeping includes the art of managing honey bees for the purpose of tapping into their benefits (Cadwallader et al., 2011). These benefits include food and medicinal, raw materials for industries, and biodiversity protection. Moreover, management of bee colonies for pollination purposes is increasingly important in effective agriculture (Food and Agricultural Organization [FAO], 2012; Mujuni, Natukunda & Kugonza, 2012). This presents an opportunity for commercialization. However, despite the high value of beekeeping products (Belgium Technical Cooperation [BTC], 2013) and recognized social, environmental, and economic benefits, the activity remained non-commercial. This is mainly due to the lack of a proper BM (International Trade Centre [ITC], 2015). Therefore, this study is set to analyze BM structures in the Tanzanian beekeeping sector. Also, it contributes to a theoretical understanding and application of the BM innovation. It builds on the body of literature on the business structures for commercial beekeeping.

This study is organized into five sections. First, the study concepts are presented to give a common understanding of the thoughts. Second, a theoretical review presents the BM structured. The third part presents the approach and methodology. This section is followed by the BM structures available in Tanzanian beekeeping sector. Finally, we conclude by suggesting the BM for beekeeping commercialization. Areas for further studies are also identified and presented.

Study Concepts

This section presents different concepts of the study to offer a common understanding.

Beekeeping and Commercial Beekeeping

Beekeeping, also known as apiculture, is defined in various ways (Cadwallader et al., 2011; Guyo & Solomon, 2015). But all definitions point to the art of managing honeybees sustainably for the purpose of tapping into the resource benefits. In emerging economies, beekeeping is basically a traditional, honey hunting, and rural-based activity. It is practiced by local communities, mostly women and the elderly (Nyatsande, Andrew, & Innocent, 2014). Similarly, unlike other rural economic activities such as agriculture, beekeeping is typically given little attention (Match Maker Associates [MMA], 2012) when it comes to resource allocation and activity development. It is then practiced through local means by those with limited beekeeping knowledge and skills. Therefore, the management of apiaries, and access to potential markets becomes the most critical challenge in beekeeping commercialization. On the contrary, in developed economies, beekeeping is not only about retaining bees in hives; it involves effectively and sustainably managing the bee colony. This requires modern types of equipment and tools, applying appropriate beekeeping knowledge and skills, and accessing profitable markets. This is what is referred to as modern or commercial beekeeping. Therefore, commercial beekeeping is the application of modern types of beekeeping equipment and tools to effectively and sustainably tap into bee colony benefits. However, the bee colony benefits can be captured if all potential actors or stakeholders are included in a well-structured business ecosystem. "It is the BM that determines the economic value of a new technology by indicating how customer value is created and how the company can capture part of that value" (Vanhaverbeke, 2017:18). This raises the need to re-define and review the BM structures of the beekeeping sector in Tanzania.

Beekeeping Commercialization in Tanzania

Beekeeping and honey-hunting have informally been practiced for many generations in Tanzania. Different initiatives have been planned, formulated and implemented within the forests and beekeeping department of the Ministry of Natural Resources and Tourism (MNRT). These efforts intended to professionalize the sector, increase productivity and export earnings from honeybee products and, further, to sustainably contribute to socio-economic development (BTC, 2013; SNV, 2009; United Republic of Tanzania [URT], 1998). Tanzania is endowed with a favorable environment and multi-flora vegetation (URT, 1998; Pinda, 2014), which is ideal for beekeeping. But this opportunity has not been fully utilized. "The beekeeping sector in Tanzania is still a virgin industry for rewarding investment. But there is no organized marketing system for both local and foreign markets to encourage the development and expansion of the industry" (ITC, 2015:5). Moreover, emerging markets, which are also termed "low-income markets" (Prahalad, 2012), has unique characteristics that present an excellent business growth opportunity. These characteristics include the market size, competitiveness, and opportunities for innovation (Chikweche, 2013; Majumder, 2012). However, these opportunities cannot be exploited without an efficient BM: "… the logic of value creation in low-income markets depends on the nature of the BM" (Sanchez & Joan, 2010). Therefore, using modern beekeeping types of equipment and tools, techniques, knowledge, and skills will improve productivity and quality. But, BM will commercialize the sector.

Business Model

The term "business model" is often used but is not clearly defined (Chesbrough, 2007). It is often studied without an explicit conceptualization (Zott, Amit, & Lorenzo, 2011). "Despite the fact that the term 'business model' is used widely in the business world, academic research is relatively sparse, and there is no consensus because researchers define business models in different ways" (Vanhaverbeke et al., 2012:11). Therefore, it is important to have a common understanding of the concept to silhouette the study. Lindgardt et al. (2009) and Chesbrough (2007) defined a BM based on six functional parameters that might generate new value in an industry. However, they all focus on how firms create (value proposition) and capture (operating model) value. Amit and Zott (2014) defined a BM as a system that is designed and enabled by a local firm in order to meet perceived market needs. It is a description of the rationale of how an organization creates, delivers, and captures value Osterwalder and Pigneur (2010). And also, the heuristic logic that connects technical potential with the realization of economic value (Schneider and Spieth, 2013). A business model defines the way companies create and deliver value to a set of customers at a profit (Vanhaverbeke, 2017). Therefore, BM is a statement, a description, a representation, architecture, a conceptual tool or model, a structural template, a method, a framework, a pattern, relation function, and a set of activities that define how profits are made. It is the *how* of doing business. This study, therefore, is set to analyze beekeeping BMs available in Tanzania, and define the ways in which beekeeping can be structured to commercialize the sector.

Theoretical Literature Review

Despite increasing academic interest, the theoretical understanding of a BM has been contained by the necessity to comprehend new ways of earning money (Shneider & Spieth, 2013). The focus has been on explaining the business

ecosystem's ability to work profitably. This raised attempts to refer to the term as the representation of the architecture of the value creation, delivery, and capture mechanisms (Osterwalder & Pigneur, 2010).
Similarly, the literature covering the elements and the process of conducting BM innovation has experienced a strong emphasis. Different works of literature, as summarized in Table 1, suggests BM architecture on its capacity to integrate the focal firm's ecosystem.

Table 1. Description of BM Building Blocks

Author	BM Building Blocks	Core Focuses
Amit & Zott (2012)	What customer needs will the new BM address?	Content *(selection of activities to be performed)* Structure *(how the activities are linked and in what sequence?)* and Governance *(who performs the activities?)*
	What novel activities could help satisfy those needs? How could the activities be linked in novel ways? Who should perform the activities? What novel can governance arrangements be found?	
	How will the value be created for each stakeholder? What revenue models can be adapted to complement the BM?	
Chesbrough (2010)	Articulate the value proposition Identify a market segment and specify the revenue generation mechanism Define the structure of the value chain and paired assets needed to support position in the chain Details the revenue mechanism(s) Estimate the cost structure and profit potential Describe the position of the firm within the value network Formulate the competitive strategy	Value creation: a series of activities, from raw materials to consumption. Value capture: Profits made from a series of activities that created value.
Lindgardt et al. (2009)	Target segment Product or service offering Revenue model	Value proposition
	Value chain Cost model Organization	Operating model
Masanell & Feng (2013)	How it creates value for customers How it captures value for its stakeholders	The BM is built along a simple profit function
Osterwalder & Pigneur (2010)	Customer segments Value proposition Channels Customer relationships	Customer/value stream
	Key resources Key activities Key partnerships	Firm/organization operation stream
	Revenue streams and Cost structure	Profit/value capture stream
Vanhaverbeke, (2017)	Identify a specific customers group to serve Create a customer value proposition Identify key resources Identify key processes needed to deliver that value Design a profit formula	A BM defines the way a company creates and delivers value for a specific customer group at a profit

At its heart, a BM should be built to perform two important functions: revenue/value creation and value capture. First, it creates net value through a defined series of activities, from raw materials acquisition to consumer satisfaction (Chesbrough, 2007). This is important because, if there is no net creation of value, the other companies involved in an ecosystem won't participate. Second, it captures value from a portion of those activities. This is equally important because an unprofitable business is not sustainable. According to this understanding, despite overlapping of building blocks, BM architecture is centered on the value proposition. A BM demonstrates how an ecosystem creates, delivers, and captures value. To experiment with alternative BMs, one promising approach is to construct maps of BMs, to clarify the processes underlying them, which then allows them to become a source of experiments considering alternate combinations of the processes (Chesbrough, 2010). This modeling approach provides a pro-active way to experiment with different business architectures and allow organizations to try various possibilities before committing to a specific model. Therefore, theoretical considerations of configuring elements of a BM here can become far more concrete.

Methodology

Expanding interest in BMs and business model innovation (BMI) has led to an increasingly wide and confusing body of literature (Schnieder & Spieth, 2013). This study adopted a literature review approach with the aim to expansively analyze beekeeping BM structures in Tanzania. Seuring & Gold (2012) define a literature review as a systematic, explicit, and reproducible design for identifying, evaluating and interpreting the existing body of recorded documents. It is the process of reviewing literature as an iterative cycle of defining and refining parameters and keywords, searching for literature on the basis of these keywords, and evaluating and recording the body of literature (Saunders et al., 2009). Therefore, the approach was adopted with the aims of mapping, consolidating, and evaluating the intellectual territory of the sector. Also, identifying knowledge and structural gaps to be filled in order to develop the existing body of knowledge in the beekeeping BM. We adopted the three-stage process for systematic literature reviews (Seuring & Gold, 2012). In order to gain an overview of the existing literature on the BM in beekeeping sector, we first identified our research objective and designed our literature review process accordingly. Second, we conceptualized the study concepts. And lastly, we analyzed BM structures in the view of commercialization of the beekeeping sector. In analyzing a sample of research documents in a systematic and rule-governed way content analysis was used. Content analysis is a class of methods within empirical social science that can be applied in a quantitative and qualitative way (Seuring & Gold, 2012). Therefore, four main steps [material collection, descriptive analysis, category selection, and material evaluation] forming the process model of qualitative content analysis was adopted (Schnieder & Spieth, 2013; Seuring & Gold, 2012). To report our findings within the third step of the process, we presented different models used in beekeeping commercialization in Tanzania. Within each model, extant contributions are discussed focusing on how the model creates net value for the beekeeping ecosystem.

Business Models in the Beekeeping Sector in Tanzania

In spite of every BM being unique, there are general models that can be used as guidelines. But in Tanzania, a BM for commercial beekeeping is not yet in place (MMA, 2012). However, different models have been designed and piloted without full adoption. Therefore, this section analyzes different BMs in two parts: first, by analyzing the nature of the interdependencies developed by the business; second, to critically observe its applicability in the Tanzanian beekeeping sector toward commercialization.

Cooperative Model

The cooperative structure is among the highly suggested and preferred BMs by the government and developing partners. This is because of its advantages, most of which provide a solution to most of the rural business operation challenges (Sizya, 2001). The operation structure of the model is structured around a cooperative (Cadwallader et al. 2011). However, there are different modes of cooperatives to include: community-based enterprises/organizations (CBO), regional, national, and crop/produce-based cooperatives. During the study, we found that most beekeeping cooperatives are available to a few regions. At the national level, the Tanzania Beekeepers Association and Tanzania Honey Council are the most effective ones. However, most associations are weak, fragmented, and are not pushing the beekeeping development agenda due to limited capacity, focus, and resources. Also, the model has lost confidence among rural people in its ability to commercialize the sector. The tricky situation of a cooperative model relies on the need for good governance, cooperation, and communication. This sort of BM would logically require a collective of other individual responsibilities among members. This could be achieved through a combination of actions and procedures for members depending on their knowledge, skills, and experience. With exclusive responsibilities, however, comes the need for increased dedication as well as honesty. Therefore, a cooperative model will be effective through joint efforts, and mutual trust among members in the ecosystem.

Collection Centre Model

This is a model in which all commercialization activities are structured around a defined collection point known as a collection center. Depending on how it is owned and managed, the model is structured/formulated around the collection center to perform the aggregation, commercialization, and linkage roles. It receives products from depositors (beekeepers), checks for quality, traceability, and does the grading. It manages deposits, keeps records, maintains safety, and find markets. Also, it is a link between producers (beekeepers) and buyers or PSOs. A well-structured collection center creates a good link such that products are easily sold and at a good price. However, developing an appropriate commercial structure is a challenge, particularly in establishing the cost structures. Africare and BTC are still piloting the model in the Tabora and Kigoma regions, respectively (MMA, 2007; BTC, 2013). The strength of the model, however, is built on its ability to manage the revenue streams. Therefore, with a well-defined activity of the center, the cost structure can also be well managed. To achieve this, a well-structured partnership model is necessary.

Warehouse Receipt System Model

Warehouse receipt systems (WRS) is one of a series of a modern market model that can be adopted in different combinations and permutations according to the circumstances. It has been used to develop more productive agriculture markets in delivering benefits to producers and consumers (URT, 2012). First, it arranges a market window, which can help to secure the best possible deals. Second, it provides a platform for the introduction of institutional innovation like product grading and exchange trading (Onumah, 2010). Third, it provides a focus for development of the entire commodity chain through incentives. Last, it facilitates aggregation of products (Paschal, 2012). The model is structured around a registered warehouse, and it is run or traded by using a transferable document called a "warehouse receipt". To serve its purpose, WRS includes other participants like financial institutions, PSOs, and DSOs. Also, it integrates the government, through its agencies and organs, to oversee the system. In some cases, the model seems to be inappropriate because of constant government and political interventions. However, we think the inclusion of government agencies is important because operating in unclear rules, regulations, and procedures that govern the sector reduces the ability to capture value. "Government regulations can change a profitable SME niche business into a nightmare in just a few weeks or months" (Vanhaverbeke et al., 2012:09). Therefore, the WRS model in the beekeeping sector can be effective if a key partnership is well structured and coordinated such that there are trust and operational confidence among members. Also, cost structures should be reviewed so that beekeepers can see the benefit of trading through the model.

Contract Farming Model

Contract farming (CF) is a forward agreement specifying the obligations of farmers and buyers as partners in business (Will, 2013). Normally, a buyer provides embedded services such as inputs, pre-financing of input delivery on credit, and other nonfinancial services. Melese (2011) described CF as one such structure offering opportunities to agribusinesses to lower transaction costs. They gain a degree of control over the production process and traceability without necessarily requiring ownership. It is one of the governance structures between the two extremes: spot market and vertical integration. The model can be grouped into five contract farming structures (Will, 2013): the centralized model, nucleus estate model, multipartite model (Jiwa, 2000; Meles, 2011), informal model, and an intermediary. Usually, the model involves producers through their organizations, and it creates a partnership among the government, DSOs, and the PSOs. Contracts under this model may involve a varying degree of coordination depending on the interest they have in an ecosystem. However, creating value in this model depends solely on the performance of intermediaries. Therefore, in spite of PSOs to trade with producers under strict predetermined quantity and quality-control conditions. The model can be set up through different business structures, depending on the intensity of vertical coordination, the type of product and inputs engaged, and the number of key partnerships involved in the ecosystem.

Discussion

In practice, the above-mentioned models are not mutually exclusive. For example, combined features of different contract farming may be found in one contractual arrangement. This is to say that the boundaries between models are fluid with regard to organizational structures, operational arrangements, and size of operations. The models chosen for starting up a scheme may change over time through the integration of lessons learned, changing attitudes, and adoption of new technologies. A model that proves to be appropriate for the start-up phase, or the certain location, may need to be adapted and perhaps changed for the consolidation and scaling up phase, respectively. Adopting a beekeeping BM has shown some challenges mostly from the beekeepers' side. Side-selling, adulteration, and aggregation are the most pressing issues for value capture. Similarly, producers are disadvantaged in some situations. For example, whenever the market condition changes, produce may be rejected, and prices re-negotiated on the grounds of quality conformity. Moreover, nontransparent pricing mechanisms, quality specifications, and loss of control and flexibility in deciding production mix can limit beekeepers to benefit from market opportunities. Therefore, an innovative model is needed to ensure sustainability of value capture for beekeepers. The model should include moderating partners such as the government agencies, DSOs, which can ensure that all partners benefit in the ecosystem.

In Tanzania, it is evident that identifying and selecting beekeeping commercial model is an art rather than scientific process. The sector is washed with many actors who use different approaches and art of conducting business transactions. The beekeepers, who are main producers and the core elements of the BM, are not coordinated. This makes them weak and trades on a short-term transaction basis. Keeping in mind the characteristics and key elements of BMI, it is important to identify a partnership model that creates and supports thresholds for the involvement of beekeepers based on economically viable units. It should be a partnership that considers beekeeping as a business and not as a tradition. Involvement of the beekeepers as partners in the model should be judged on the merits of providing an opportunity that outsmarts the alternative use of labor and investment at a household level. The partnership model is structured around the connection of partners in the value delivery process. Four building blocks are designed to make sure that value is captured as it can be created by all partners in the business. Figure 1 below shows the partnership model for commercialization of beekeeping activities.

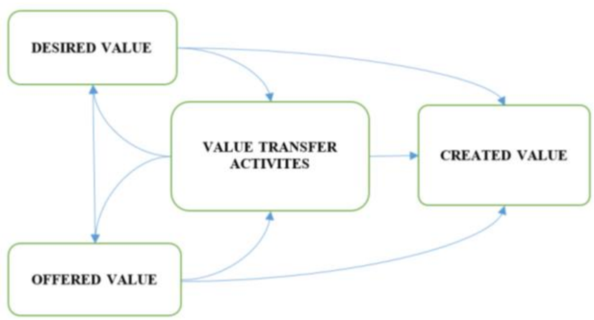

Figure 1. The Partnership Business Model Structure
Source: Adapted from https://valuechaingeneration.com/2014/10/17/the-partnership-canvas as visited on March 10, 2018

The desired value is the building block aiming to look for a partners' contribution in the model: *Why do we need a partner? What value do partner convey in the business?* To fill in this block, the firm describes the missing component from its own model, for which it finds a partner. For example, if aggregation and processing are missing elements, then, the firm will look for a partner to cover those components. The description of the missing components are used to screen candidate partners on value(s) it desire(s).

Offered value defines the firms' contribution to the partnership: what matching offer are we contributing in the business? After recognizing a desired value in a partner, then a matching offer that connects with that value should be developed. An effective offer either complements or add to the desired value from a partner. Since all partners need to capture value, therefore, unless this connection is made, a basis for creating a relationship is possible. Otherwise, the model will not be ecological. To minimize the challenges and contradictions observed in the cooperative, tripartite, and contract farming models, it is important for partners to decide on the way to connect values. Through what arrangements/collaboration activities will value be connected? How will desired and offered values be connected? The value transfer activity defines the exchange by which synergy between the partnering BMs is created. It is important that partners find a way to integrate the value that they are putting to the table. Lastly, it is the value creation block. Basically, the first three blocks define a basis for connecting values. However, the critical question is whether this value engine enables to create a new form of value in one of the BM. Therefore, with the first three building block, an engine is created that enables value to flow between partners.

To create net value in emerging markets, there are different strategies. However, creating an ecosystem that co-evolves with inputs from partners, many of them located outside the formal economy, helps to improve socio-economic context and allows value creation in a more sustainable competitive advantage. Business models with a high degree of cooperative interdependences are especially convenient for this goal. While it is true that this scenario presents greater uncertainties, we have shown throughout this paper different success stories of how firms' efforts and creativity have been fully rewarded.

Conclusion and Study Implications

A good BM should aim to create value for customers, and also capture value for participants in the ecosystem. In beekeeping, two factors are important to consider when building a BM: quality of the products and volume. However, it is a challenge to obtain good volume without compromising quality. Beekeepers alone cannot capture this potential. However, since the main challenge of available models is the inclusion of potential partners, which drives firm's choices to the objective of improving productivity while reducing costs. The partnership model can take advantage of this opportunity and gain greater efficiencies in its operations. Partners can refine and extends its own skills, capabilities, and resources to commercialize the sector. The expected result, in this case, is an innovative partnership model which is able to increase income options while generating economic profits.

Limitation and Areas for Further Studies

This study aimed at analyzing the commercialization of beekeeping in Tanzania through the BM structure. Therefore, it was limited to the analysis of structuring a BM that could bring positive net value in the beekeeping ecosystem. However, commercialization should be integrated with the value chain and production capabilities. It is an opportunity for other studies to analyze a potential value chain that can commercialize the sector. Also, there is no consensus on the building blocks of an effective BM. The study, therefore, encourages more research on the BM structure in the beekeeping sector. Similarly, productivity, quality products and trust among partners in the ecosystem have repeatedly been observed as the constraints factors for effective business modes operations. They leave a room for further studies on different means to overcome these challenges. It is important to design and pilot a partnership beekeeping model so that to get an appropriate model which can be adopted in other emerging markets.

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ACCELERATION OF TRAINING MANAGEMENT INNOVATION PROCESS: CONCEPTUAL APPROACH ON THEORIZATION AND LABELING

Michael Bigol Pasco, San Beda University, Philippines

Management innovations need to be progressive because they evolve into legitimate management. A company becomes adaptable if it develops updated management practices that increase cross-boundary learning, breakthrough ideas, and greater degree of customization and standardization. The purpose of the study is to investigate the management innovation process and explain the slow development of management innovations into legitimate management practices. Literature review suggests that the lack of well-developed theorization and labeling was a gap in the management innovation process, along with the lack of empirical observations to validate a management innovation process. Specifically, the study examines the institutional and individual factors in the training management innovation process and determines how the individual factors mediates the influence of institutional factors on theorization and labeling. Managers can use the conceptual framework for business practices. I also propose a case study research design and qualitative research methods on how the study can be realized.

Introduction

Managers and scholars are innovating products, technologies and management practices as solutions (Hamel, 2006). In a world of accelerating change for companies, management innovations need to be progressive because these are insurance against “irrelevance” or obsolescence (Hamel, 2006). Old management principles inherited by firms and management researchers from the Industrial Age can make a company less agile (Harder, 2011). A company becomes less adaptable if it will not develop updated management practices in the sense that “the challenges brought by the increasing specialization limit the kind of cross-boundary learning that generates breakthrough ideas, the quest for greater standardization usually leads to an unhealthy affection for conformance, and the new and the wacky are perceived as dangerous deviations from the norm” (Hamel, 2006:78). Well-known traditional management practices of the current era started as management innovations during their development (Birkinshaw & Mol, 2006). While there are formal methodologies established for product and technological innovation, management innovation lack processes, backed up by empirical observations on factors and relationships between important constructs and variables, to support the faster formation of more management innovations that deliver competitive advantages to the organization and achievement of organizational goals (Birkinshaw, Hamel, & Mol, 2008; Hamel, 2006).

Background and Academic Context

The Need for Management Innovation Processes

Most of the institutionalized management practices underwent slow or “gradual” period of development as a management innovation before reaching legitimacy in the different organizations (Birkinshaw & Mol, 2006:82, 85). The fast changes around the world demand variety of established management practices to fit different situations. “Variety is one essential principle of adaptability” to cope with fast changing global environment (Hamel, 2006:79). Management practices can be established in more variety if there is a reliable management innovation process (Birkinshaw et al., 2008). Using management innovation process model of Bikinshaw et al., (2008), I reviewed related literature and sought specific gaps that I prioritized to study. I found the lack of empirical data and investigation of factors to understand the occurrence of theorization and labeling stage that impact fast or slow completion of the management innovation process (Volberda, Van Den Bosch & Mihalache, 2014). Theorization means the promotion of benefits of the management innovation to stakeholders while labeling means naming of the management innovation according to its value (Birkinshaw et al., 2008). Management innovations take time to be legitimized because of the limitations in the awareness and understanding of theorization and labeling (Birkinshaw & Mol, 2006).

Brief Background of Management Innovation

Management innovation had begun to occur even before the formal practice of management happened but was not labeled as “management innovation”, and the management innovation process was not made known. I had a comparable story about Prince Henry- the third son of King John I of Portugal, who became famous as “Prince

Henry the Navigator," when in fact he never attended any of the expedition (heritage-history.com, 2015). His management structure enabled him not to be physically present in any of the navigation, far more different than the navigation practices during his time (u-s-history.com, 2014). Since 2006, management innovation and its processes have succeeding theoretical papers, analyses of cases, and have formally been defined following the concepts of Hamel (2006). Birkinshaw & Mol (2006) understand the evolution management innovations by identifying 175 significant management innovations from 1900 to 2000. The management innovations were evaluated based on dimensions like marked departure from previous management practices, novelty, and competitive advantage influenced on the pioneering firms (Vaccaro, Jansen, Van Den Bosch & Volberda, 2012). Hamel (2006:75) defined management innovation as "a marked departure from traditional management principles, processes and practices or a departure from customary organizational forms that significantly altered the way the work of management was performed." With respect to all industries, management innovation "changes how managers do what they do" and it confers "competitive advantage on the pioneering companies." Many of the traditional management practices, processes and structures known in modern business organizations were made from the efforts of management innovators in the last 150 years (Hamel, 2006).

Management Innovation Process

Few companies understand how such innovation occurs — and how to encourage it. To foster new management ideas and techniques, companies first need to understand the four typical stages in the management innovation process (Birkinshaw & Mol, 2006:81). Some notable developments in the study of management innovation are the works of Birkinshaw & Mol (2006), Birkinshaw et al. (2008), Mol & Birkinshaw (2009) and Pfeffer (2007) about management innovation process, and those of Harder (2011), Vaccaro et al. (2012), and Walker, Damanpour & Devece (2011) on antecedents of management innovation. As Hamel (2006) starts to define management innovation, he associates broadly four (4) stages of management innovation. It is a systematic process of producing bold management breakthroughs: "commitment to a big management problem, novel principles that illuminate new approaches, a deconstruction of management orthodoxies and analogies from atypical organizations that redefine what's possible" (Hamel, 2006:77). Pfeffer (2007) respects the importance of external consultants in the fulfillment of a management innovation. There are 4 major phases of management innovation process: motivation, invention, implementation and theorization and labeling (Walker et al., 2011).

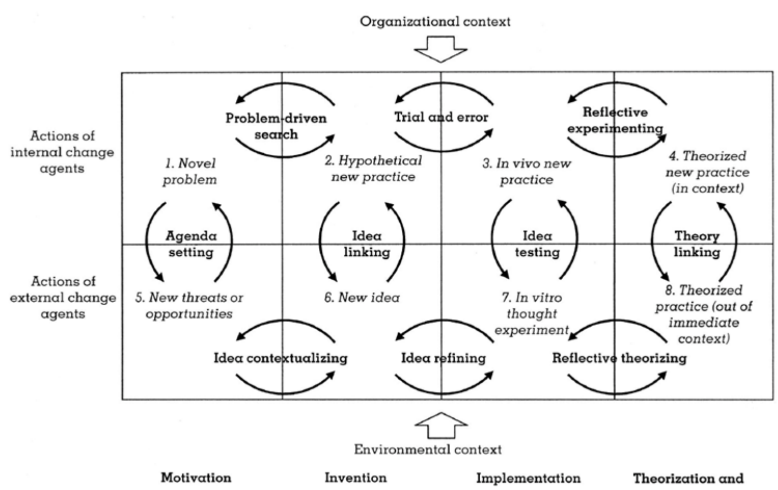


Figure 1. Management innovation process model
Source: Birkinshaw, Hamel & Mol (2008:832)

A key feature of the theoretical framework, in Figure 1 above, is that it does not assume a simple left-to-right sequence of activities (Birkinshaw et al., 2008). The components of the management innovation process include environmental context, organizational context, change agents, phases, elements, and activities (Mol & Birkinshaw, 2009). Elements are the technical and rhetorical components of management innovation process and there are eight (8) elements of management innovation across phases. The elements are novel problem, new threats or opportunities, hypothetical new practice, new ideas, in-vitro new practice, in-vivo new practice, theorized new practice in context and theorized practice out of immediate context. (Birkinshaw et al., 2008).

Theorization and Labeling

The theorization and labeling phase has two elements namely: theorized new practice in context and theorized practice out of immediate context. The change agents have cognitive roles that include thinking and planning for the organization (Hackman & O'Connor, 2004). The change agents also have social roles that focus on communication, persuasion and building relationships (Vaccaro et al., 2012). With focused benefits on a particular market segment, "theorization presupposes an established definition of benefits and ends as well as pre-existing population which can adopt a category" (Croidieu, Ruling & Boutinot, 2012:8). Labeling is "the development of familiarity and finally social validation that foster imitation, and attracts new entrants in an emerging category" (Croidieu et al., 2012: 5). Theorization and labeling also cover the risk and reward for the individual and the firm and the goals are growth, efficiency, stability and greater income (Lounsbury & Crumley, 2007).

Uncommon Occurrence of Theorization and Labeling

Unintended actions of management innovation actors (Birkinshaw et al., 2008) or uncommon occurrence of theorization and labeling was the institutionalization efforts for management innovation and was evaluated with the presence or absence, awareness or unawareness, competence or limitations in skills, and fast or gradual development (Birkinshaw & Mol, 2006). Considering management innovation as a type of innovation, I reviewed twenty-four (24) journal articles to compare the phases of the different types of innovation processes to the phases of management innovation processes as implied or emphasized by different scholars and to better understand the similarities and differences with the 4 phases of management innovation process framed by Birkinshaw et al. (2008).

Most journal articles viewed the phases/stages of innovation as consisted of invention and implementation. Few considered motivation and theorization and labeling in the phases of innovation in their research. Carpinetti. Gerolamo, & Galdamez (2007:378) define innovation was the economic implementation of new ideas and discoveries, including the implementation of an innovation culture in an organization. I compared the implied phases of innovation to those of management innovation phases by Birkinshaw et al. (2008), as shown in Table 1. Motivation was implied as an innovation process phase by Michel, Brown, & Gallan (2008), Cerami (2000) and Hobday (2005) who affirmed the importance of novel problem to start the innovation process while new threats or opportunities were given utmost importance by Lin & Chen (2007), Schiele (2006) as well as by Zhu, Kraemer & Xu (2006). Drucker (2002:5) also looked at innovation as the act that endowed resources with a new capacity to create wealth.

Table 1. Comparison of the management innovation process of Birkinshaw et al. (2008) and other innovation processes

	Management Innovation Process (Birkinshaw, Hamel & Mol, 2008)							
	Motivation		Invention		Implementation		Theorization and Labeling	
Authors	Novel problem	New threats or opportunities	Hypothetical New Practice	New Idea	In vivo new practice	In vitro thought experiment	Theorized new practice	Theorized practice (out of immediate context)
Cerami (2000)	X			X	X	X		
Garcia & Calantone (2002)			X	X	X	X		
Drejer (2004)			X	X	X			
Ehigie & McAndrew (2005)			X	X	X			
Flint, Larrson, Gamelgaard & Mertzer			X	X				
Hobday (2005)	X			X				
Sahin (2006)				X	X	X		
Wylant (2006)			X	X	X	X		
Slater & Mohr (2006)				X	X			
Schiele (2006)		X		X	X	X		
Barrett & Sexton (2006)			X	X	X		X	X
Zhu, Kraemer & Xu (2006)		X	X	X	X	X		
Carpinetti, Gerolamo & Galdamez (2007)				X	X			
Lin & Chen (2007)		X	X	X	X	X		
Grabher, Ibert and Flohr (2008)				X	X			
Michel, Brown & Gallan (2008)	X			X				
Ortt & Duin (2008)				X	X	X	X	X
Teece (2010)			X	X	X	X		
Malins (2011)				X	X		X	X
Khanapuri, Soni, Sharma & Soni (2011)				X	X	X		
Ciabuschi, Dellestrands & Martin (2011)				X	X			
Soliman (2011)				X	X			
Jiao, Alon & Cui (2011)				X	X			
Lindgreen & Jorgenson (2013)				X				

The phases of theorization and labeling and activities of theorized new practice and theorized practice were considered in the innovation process by few authors like Barrett & Sexton (2006), Malins (2011) and Ortt & Duin

(2008). Ortt & Duin (2008) studied that contextual innovation process and application of contingency theory, as flexible determinants of the needs and behaviors of customers, were better than single mainstream approach and was characterized by market pull, technology push, and network with internal and external partners, and alignment with corporate strategy. Malins (2011) identified that the stages in innovation design process were understanding, observation, ideation, prototyping, synthesis, iteration, implementation and convincing firms (SMEs) on design thinking.

Training Management Innovation as the Unit of Analysis

Not all training programs are training management innovations. The training practice that is "novel" is considered a training management innovation (Hamel, 2006). Training management innovation is an important area for the firms to improve job performance and to help the workforce acquire and improve their technical skills (Arguinis & Kraiger, 2009). Training management innovation involved training programs and on-going talent management efforts for a firm to achieve competitive advantage (Ashton, 2005). Kim, Jeon, Jung, Lu, and Jones (2011) emphasized that many scholars applied marketing principles to the institutionalization of new recruitment management. Marketing could result to an effective image for a company and position the company as an employer of choice (Kim et al., 2011). Arguinis and Kraiger (2009) also emphasized that the benefits of training and development were related to individual and team well-being and not just on mere job performance. In large companies in the Philippines, Edralin (2007:146) concluded that the most often used training method, regardless of the industry sector and training categories, was the lecture together with the use of new technologies such as the CD-ROM, the Internet, and the company intranet/portal. This was followed by team training and then by on-the-job training."

Statement of the Problem

Birkinshaw et al. (2008) state that the current understanding of the antecedents and processes of management innovation is currently limited, and its frameworks lack empirical observations. Birkinshaw et al. (2008) and Volberda et al. (2014) reiterate that the management innovation processes and firm-specific competitive advantages have yet to be tested, although the benefits are derived from success. I attempt to validate the occurrence of the theorization and labeling phase of management innovation process set by Birkinshaw et al. (2008) and describe the identified factors that influence theorization and labeling, and in turn explain the speed of developments of management innovation.

Conceptual Framework

Theorization and Labeling

Theorized new practice (in context) is an element that involves acceptance of benefits of management innovation by firm, familiarity on use and name of management innovation within the firm, activities of internal change leaders (Birkinshaw et al., 2008) and retention or regular use of management innovation (Gebauer, 2011). In contrast, theorized practice (out of immediate context) is an element characterized by accepted benefits of management innovation, familiarity on use and name of management innovation by outside firms, fashion-setter influence of the innovating firm, and imitation by other firms (Abrahamson, 2006; Croidieu et al., 2012).

Institutional Factors

Weiss, Aier and Winter (2013) note that "institutional theory deals with questions of how and why institutions get adopted, refused and changed over space and time" (p.3). An institution "represents a social order or pattern that has attained a certain state or property", which refers to as "a rule-like status in social thought and action" (Jepperson, 1991; as cited by Weiss et al., 2013:3). Institutionalization "denotes the process of such attainment" (Jepperson 1991; as cited by Weiss et al., 2013:3). Weiss et al. (2013) identify the institutional factors like governance, goal alignment and enforcement that directly affect institutionalization. The factors: social legitimacy, efficiency, organizational grounding and trust affect the actors and processes of institutionalization (Weiss et al., 2013).

Individual Factors

Managers' understanding and managers' attitudes are individual factors and areas of attention by organizations for successful regular use or theorization and labeling of new management practices (Waal, 2003).I synthesize a conceptual framework of the factors affecting the theorization and labeling phase as shown in Figure 2.

Research Propositions
The first set of propositions covers the areas of attention on managers (managers' understanding and managers' attitude) and its relationship to theorization and labeling.

P1. Areas of attention on managers (managers' understanding and managers' attitude) influence the theorized new practice in context.

P2. Areas of attention on managers (managers' understanding and managers' attitude) influence the theorized practice out of immediate context.

Waal (2003) identifies "areas of attention" of organizations on managers that also group relevant behavioral factors of managers to institutionalization of a management practice and process- concluded as important for the successful implementation and regular use of performance management" (695).

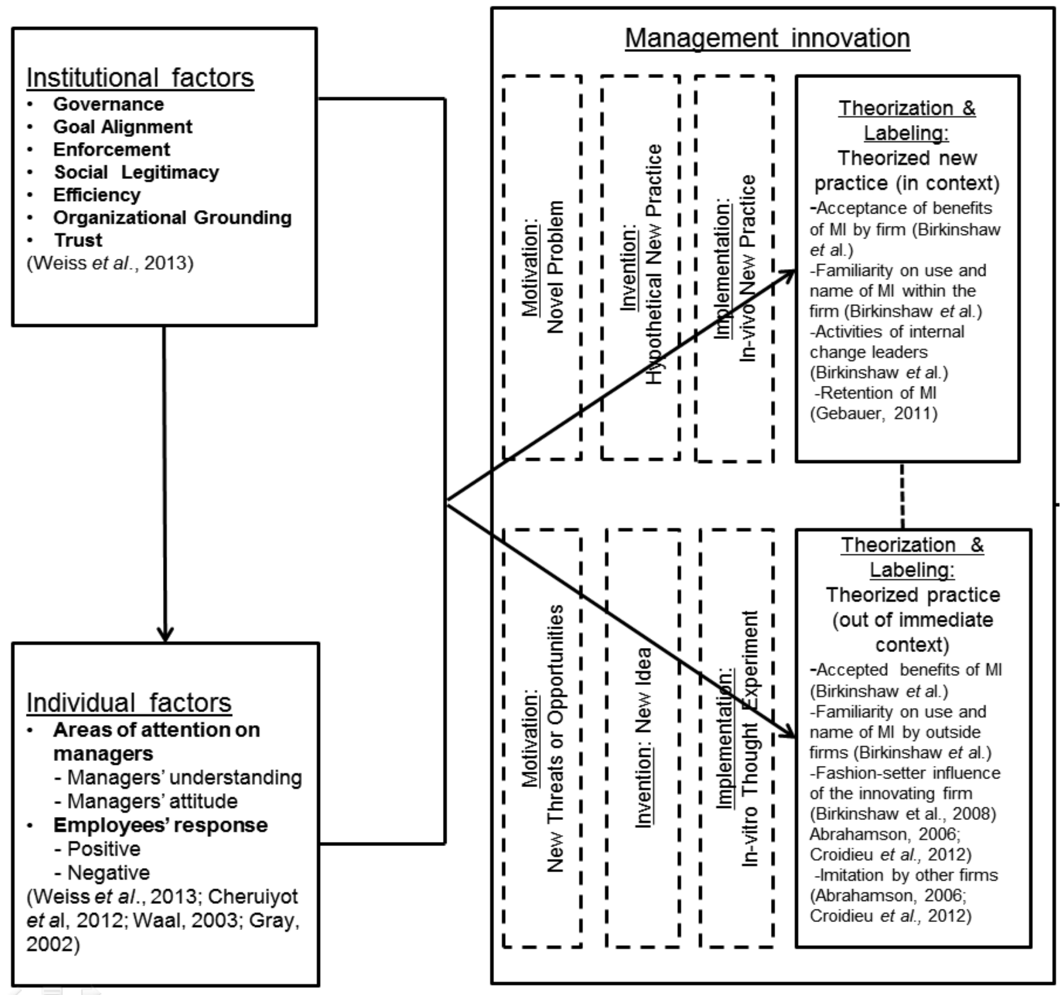


Figure 2. Conceptual Framework: Factors Affecting the Theorization and Labeling Phases of Management Innovation Process (Pasco, 2018)
Sources: Adapted from Abrahamson (2006), Birkinshaw et al.,(2008), Cheruiyot et al., (2012), Croidieu et al., (2012), Gebauer, (2011), Waal, (2003), and Weiss et al., (2013)

Managers' attitude is associated with a "leadership role that requires dealing with external stakeholders and political negotiation" (Moynihan & Pandey, 2010:853). Such positive managers' attitude is characterized by "support on use of the management practice, as well as open, innovative, and risk-taking culture" (Moynihan & Pandey, 2010:861). Furthermore, managers' results are openly communicated, managers are stimulated to improve organizational performance, and managers clearly see the other promoter of the efforts (Burgelman, 1983). Daniel, Myers and Dixon (2012:372-373) also believe that adoption of new management practice starts with an initial comprehension stage, when the managers of an organization first learn about the practice and, importantly, how the practice may both address their needs and fit their organization. The second set of research propositions covers employees' response and the relationship with theorization and labeling of a management innovation.

P3. Employees' response (positive or negative) influences the theorized new practice in context.

P4. Employees' response (positive or negative) influences the theorized practice out of immediate context.

Weiss et al. (2013) describe employees' response, similar to stakeholder response, as reactions that reflect the resulting actors' behavior. Positive employees' response shows receptiveness and the manifestations of the management practice institutionalization and are desirable responses (Weiss et al, 2013). Positive employees' response includes "adoption, risk-taking or willingness for coordination and collaboration" (Cheruiyot, Jagongo & Owino, 2012). Gray (2002) has identified three main levels of resistance to change related to information, gut reaction or emotional, and cultural. Resistance to change of stakeholders, including those of employees, is very important for consideration in change management and in establishing legitimacy of management innovation (Birkinshaw et al., 2008). Furthermore, the institutional factors (Weiss et al., 2013) include resource-based profile of the management innovation and incentives at stake (Peteraf, 1993); the strength of influencers; and the retention of the management innovation, and its legitimacy (Gebauer, 2011). There are external conditions whether regulatory, social, technological, ecological, political, or competitive (Currie, 2008) that affect theorization and labeling.

P5. Institutional factors (governance, goal alignment, enforcement, social legitimacy, efficiency, organizational grounding and trust) affect theorized new practice in context.

P6. Institutional factors (governance, goal alignment, enforcement, social legitimacy, efficiency, organizational grounding and trust) affect theorized practice out of immediate context.

Weiss et al. (2013) identify the institutional factors such as governance, goal alignment and enforcement that directly affect institutionalization. Weiss et al. (2013:7) cite that governance (GOV) captures the essential aspects of how to control, design and restrict guidelines (Winter & Schelp, 2008) to foster consistency of the new practice. Goal alignment (GAL) refers to the degree the new management practice "is aligned with stakeholders' individual goals" (Weiss et al., 2013:7). Weiss et al. (2013) also defined enforcement (ENF) as "the level of legal coercion behind institutional norms and requirements and includes sanctioning mechanisms that describe the stakeholders' dependency on budget, knowledge and approval" (8). Weiss et al. (2013:8) cited that enforcement is a set of institutional factors and "is of solely regulative nature. The following factors: social legitimacy, efficiency, organizational grounding and trust affect the actors of institutionalization who then influence the process of institutionalization (Cheruiyot et al., 2012). The factor of social legitimacy (SLE) represents the perceived social rationale for and inquires to which level a stakeholder achieves social fitness inside the firm. If employees or change leaders as actors can expect to personally gain a better social status, they will be more likely to respond positively to the matter. Efficiency (EFF) deals with the economic benefits and reasons in achieving personal and organizational goals of managers and employees for institutionalization of management practices through investment of resources, setting guiding principles, and providing implementation support. Organizational grounding (OGR) has impact on individuals' beliefs and adoption of practices and describes to which level the new management practice is anchored within the organizations' values in terms of strategy definition, top management support or position in the organizational hierarchy. Trust on the change leaders "to do the right things right are shown if the stakeholders are willing to give up some of the autonomy, adopt new rules and collaborate toward a greater purpose" (Weiss et al., 2013:7).

Research Framework and Methodology

Theoretical Foundations

Two of the theoretical foundations of my study were the social systems theory and the rational perspectives as the bases of the descriptions and explanations about the contexts, categories and factors associated with the theorization and labeling of the management innovation process according to Birkinshaw et al. (2008). I also described the training practice innovation process, as the unit of analysis, with the social learning theory (Bandura, 1971), connectivism theory of learning (Siemens, 2005), and diffusion theory (Dearing, 2008).

Research Design

I intended to use qualitative research method in this cases study research. My study was a qualitative descriptive and explanatory case study research (Yin, 2009) with two case studies-holistic design given the training practice innovation process of focused firm and the training practice innovation processes of diversified firm as units of analyses (Eisenhardt, 1989; Ritchie & Lewis, 2003). This case study research had proceeding investigations on the phenomena and occurrence about theorization and labeling phase of the management innovation process as a seminal work of Hamel (2006). Qualitative aspects of my research "referred to a broad class of empirical procedures to describe and interpret the experiences of research participants in a context-specific setting" (Denzin & Lincoln, 2000b, as cited by Ponterotto, 2005:128).

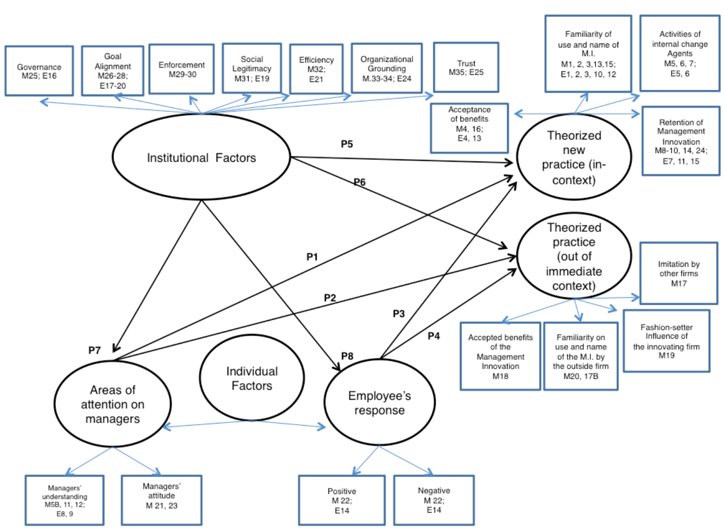
Criteria for Interpreting the Findings

Interpretation of the findings required iteration between propositions and observed data and matched sufficiently contrasting rival patterns to the data (Nicholson & Kiel, 2007). As a qualitative and descriptive case study research where the set of propositions are important to be applicable to the case and unit of analysis, I utilized replication logic and not sampling logic where sample size was a matter of purposive choice (Trochim, 1989; Yin, 2008:58). The chosen respondents were assessed to be in best position to describe the theorization and labeling phase in the training management innovation.

Case Data Analyses

Since I did not intend to conduct statistical generalization, I intended to use analytic generalization to compare my research propositions with observed data (Nicholson & Kiel, 2007; Trochim, 1989; Yin, 2009). Data analyzed were validated with triangulation method (Yeung, 1997; Yin 2009). I analyzed with the pattern matching of modal quantitative and qualitative responses, non-metric categorical data for descriptions of contexts, ordinal data from survey, interview of research participants, and my participant observations for analyses of associations between variables.

Pattern Matching of Modal Responses



Trochim (1989:360) defined outcome pattern matching for generalization "that required a theoretical pattern of expected outcomes, an observed pattern of effects, and the attempt to match the two." Supported by related literature, positive relationship (High level of Independent Variable and High level of Dependent Variable; or Low level of Independent Variable and Low level of Dependent Variable) meant "complete match" or literal replication of the propositions in my research conceptual framework (Nicholson & Kiel, 2007; Trochim, 1989). Inverse relationship also meant "partial match" or partial replication of an appropriate proposition in this research as this showed influence to theorization and labeling measures (Jaccard & Jacoby, 2010; Nicholson & Kiel, 2007). However, zero association meant "no match" or no replication of appropriate proposition (Nicholson & Kiel, 2007).

Figure 2. Operational framework: Factors Affecting the Theorization and Labeling Phase of Management Innovation Process

Source: Pasco (2018)

Summary

I propose an operational framework following the management innovation process model of Birkinshaw et al. (2008) and a case study research (Nicholson & Kiel, 2007; Trochim, 1989, Yin, 2009) for a qualitative research to understand the factors that can accelerate the development of training management innovation. I also propose constructs and variables for future quantitative research.

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TRIGGERS TO SALES OF INDEPENDENT DRUGSTORES: WHO KNOWS BEST?

Randall Bigol Pasco, Dalubhasaan ng Lunsod ng San Pablo, Philippines
Michael Bigol Pasco, San Beda University, Philippines

This research describes the alignment in perceptions of independent drugstore operators and their customers about the factors on the sales of independent drugstore, as explained by the theory of self-concept, as these impacted the profitability of the stores through less costly and effective marketing strategies that matched customers' requirements. This study utilized a descriptive–survey research design and z-test of proportions. The perceptions of the drugstore operators in San Pablo City, Philippines, reflected most of the needs of the customers. Most of the independent drugstores perceived location and quality of products triggered most the sales of independent drugstores while most customers perceived that it was price. In said areas, this study recommends the pharmaceutical companies to regularly invest in market intelligence with the drugstore operators and occasionally invest in consumer market survey that can be costlier. However, the perceptions differed on customer service, ease of access, and store image that described the lack of marketing efforts of drugstores to enhance self-concepts. This study recommends the drugstore operators to invest in marketing investments that will enhance self-concept and self-recognition of customers to develop common value perceptions with their customers and improve their business profitability. The independent drugstores operated according to the basic needs of their customers considering their income. This study also recommends the researchers to conduct further studies on the varying perceptions about customer service and ease of access between the two stakeholders.

Introduction

Medicines and healthcare products are indispensable to promote a healthy community (Reyes, Lavado, Tabuga, Asis & Datu, 2011). The pharmaceutical industry is a rapidly growing industry with the number of companies growing at 26 percent from 2003 to 2007. The industry's market grows with the contribution of both the local and foreign companies (MNCs). The foreign companies dominate the market in terms of peso sales but both local and foreign ones split in the share in terms of counting units suggesting a robust and progressive development of the sector (Reyes et al., 2011: 20). However, Pharmaceutical and Healthcare Association of the Philippines (PHAP) note that the fate of the pharmaceutical industry in the Philippines is less certain with constraints in margin brought about by growth of generic medicines as the next best alternatives for branded medicine (PHAP, 2012). This means drugstores must find out ways on how to increase sales volume in a win-win situation wherein customers are provided reasonable prices while drugstore owners can also achieve their target sales and total margins for the survival of their businesses (PHAP, 2012).The value requirements of the drugstores and consumers must be understood to align with pharmaceutical products, services and offerings that are related to improve profitability of independent drugstores with efficient and effective marketing efforts (Mullins, Ahearne, Lam, Hall & Boichuk, 2014). But investments in marketing intelligence and consumer surveys are costly. Our study assumes that independent drugstores, being a part of the bigger pharmaceutical industry, need to also practice economic aspect of corporate social responsibility in delivering quality and affordable medicine to their customers while keeping their businesses sustainable with sufficient marketing investments.

Statement of the Problem

The current study attempts to describe the similarities and differences between the perceptions of independent drugstore and their customers regarding the factors that affect the sales. Mullins et al. (2014) study the positive effect to profitability, if seller- customer's perceptions are the same. There are also negative effects to profitability if seller-customer's perceptions are different. Mullins et al. (2014) state that firms often utilize salesperson's intelligence in marketing strategies to improve sales performance, but sometimes the information may not match the needs of the customers and consumers. Getting information only from salespeople may not be reliable because self-efficacious salespeople are upwardly biased, whereas customer-oriented salespeople are downwardly biased in their perceptions of customer relationship quality (Mullins et al., 2014). El-Kholy and Abdel-Latif (2017) amplify the need for a more projection of the pharmacist's role in the community to be accepted by the public as a healthcare provider that can be determined from both pharmacists and their customers. For efficient and effective market understanding and strategy, the stakeholders who know best the triggers or factors affecting the increase in sales of independent drugstores need to be identified and understood (Mullins et al., 2014).

Hypotheses

Yoon, Oh, Song, Kim, & Kim (2014) demonstrate that consumers are generally more sensitive to lower-price promotions than to higher-quality promotions as they form their perceptions of retailer reputation, and that perceived price level and quality level independent drive the moderating effect of store image. Ellison (2010) concludes that in developed countries like the US, hospitals have one advantage over independent retail pharmacies and that is countervailing power (the ability of large buyers to extract discounts from suppliers). It becomes possible because of hospitals' general ability to induce supplier competition through restrictive formularies (Ellison, 2010). Goel (1999) considers cheaper products as one of the factors that lead customers in developing countries to buy medicines in retail pharmacies. Kaul (1995) viewed that product price is important as he investigated that managers needed to coordinate their advertising and pricing decisions to attain maximum profit. People compare price subjectively with another price or with ranges of prices (Xia, Monroe, & Cox, 2004). Knowledge, beliefs, social norms, perceived cost of actions, relative power, buyer and seller relationships, and transaction similarities moderate customers' perception on price (Xia et al., 2004).

H1. There is no significant difference between the ratings by the drugstore operators' and customers on price as a factor affecting the sales of independent drugstores.

Das and Hammer (2014) summarized recent advances in the measurement of quality, distinguishing between measurements of provider knowledge and provider effort. They studied the determinants of practice quality variation in low-income settings, highlighting the limited role of structural constraints such as infrastructure, the supply of materials including drugs, and provider training. Moe (2009) stated that while the relationship between sales and ratings was strong for higher quality products, ratings had a minimal (if any) effect on sales for lower quality products. The quality of product was important to both consumers and sellers. Goods serve as social symbols" (Grubb & Harrison, 1967:2). The use of goods-symbols communicate meanings between individuals, involves interactions between individuals, and affects individual's self-concept. Grubb & Harrison (1967) describe that with self-concept and self-recognition as triggers or motivations, the more individual values himself, the more systematic and consistent is the individual's behavior. Newton, Green & Fernandez (2010) argue that poor quality medicines are neglected public health concerns in developing countries because they may have allergic or lethal effects to people.

H2: There is no significant difference between the ratings by the drugstore operators' and customers on quality of products as a factor affecting the sales of independent drugstores.

Stevenson (2015) asserts that utility can satisfy human wants by making products readily accessible to potential customers. This emphasizes that location and ease of access can lead to sales (Stevenson, 2015). Considered as fundamental requirements for a successful point-of-sales, location and ease of access. Kulumbekova (2017) considers three basic components as motivations for medicine purchase: service constituents that included accessibility of curative assistance, quality guarantee, and catalogue of provided services; aesthetical constituents that included pharmacy interior decoration, appearance of service personnel, and design of offered attitude to goods for realization; and ethical constituents that the customers and the experience to work with them.

H3. There is no significant difference between the ratings by the drugstore operators' and customers on ease of access as a factor affecting the sales of independent drugstores.

Blodgett and Wakefield (1995) believed in the importance of customer service where availability of credit or the option to buy drugs in small amounts is related. The remedied problems of dissatisfied customers can bring the likelihood of success in sales (Blodgett & Wakefield, 1995). Inman, Winer, & Ferraro (2009) used a hierarchical modeling approach in interviews conducted with 2,300 consumers across 28 stores. Inman et al. (2009) conclude that category characteristics, such as purchase frequency and displays, and customer characteristics, such as ease of access, household size and gender, affect in-store decision-making. It is possible for independent pharmacies to take charge of the things they can control, continue growing their prescription count and over-the-counter sales, offer an extraordinary customer experience, and remain flexible during a period of industry change (Wonguphasawat, Kittisopee & Powpaka, 2008). Continued pharmacy education is important to increase market share and gain profit

(Wonguphasawat, et al., 2008). Mardanov and Ricks (2013) gather results of structural equation modeling that indicate the significant impact of pharmacists' helpfulness and professionalism on customer loyalty. Customer service quality is indeed important to improve customer loyalty. Age, gender, race, and income levels influence varying drug-purchasing behavior and loyalty to a pharmacy. El-Kholy and Abdel-Latif (2017) find that public' opinions are affected by the pharmacist's availability and knowledge, pharmacy location, service promptness, and counseling services in Saudi Arabia.

H4. There is no significant difference between the ratings by the drugstore operators' and customers on customer service as a factor affecting the sales of independent drugstores.

Wonguphasawat et al. (2008) suggest that independent drugstore operators should focus primarily on service provided to their customers, especially from the store sales staff. Drugstore should carry adequate variety of products that meet customer's need and create the image of reasonable price in the customer's mind (Wonguphasawat, et al., 2008). The importance of availability of medicines is implied in the study conducted by Christy (2002). She argues that supply chain relationship is integral to be able to make a product available to its market. Su and Zhang (2009) proposed two strategies that the seller can use to improve profits: commitment and availability guarantees. This also favors the result on availability of medicine to increase sales (Su & Zhang, 2009). Hasan, Sulieman, Stewart, Chapman, Hasan & Kong (2013:841) assessed patients' satisfaction with current community pharmacy: Participants required more information about medications and self-management (Mean=2.49 +-1.19). Measures of competence, i.e., care, interest, time, confidence and trust, could also be improved (Mean=3.05 +-1.07).

H5. There is no significant difference between the ratings by the drugstore operators' and customers on the availability of medicine as a factor affecting the sales of independent drugstores.

Since in most countries pharmaceutical companies operate within the private sector, making profits for their stakeholders by developing and selling medicines is their core business (Valodina, Sax & Anderson, 2009). Valodina et al. (2009) implied that CSR influenced balanced marketing strategies of a firm to increase sales and profitability. However, pharmacists' ability to resolve ethical problems varied and factors such as legal concerns, a sense of professional and ethical isolation and the commercial environment seemed to be inimical to developing ethical competency (Cooper, 2006). Grubb & Harrison (1967) described that the interactions between consumers, peers and stores could result to similar perceptions between them, in the theory of self-concept. The consumers and stores retain common products, brands, services, and price requirements that match each person's personal goals, fashion and norms, as shown in Figure 1.

Significance of the Study

Our research was important to validate similarities in perceptions between drugstores and consumers as explained by the theory of self-concept. These similarities in perceptions also contributed to improve the profitability of the stores from more efficient and effective marketing strategies that match customers' requirements through regular market intelligence investments on specific segments (Mullins et al., 2014). Our study noted that there were many components of the marketing strategy that were cascaded throughout the process in delivering affordable, experiential and quality medicine while managing marketing costs and sustainability of stores. The benefits of ethics in sales were also mentioned by Hansen & Riggle (2013) to sustain a business.

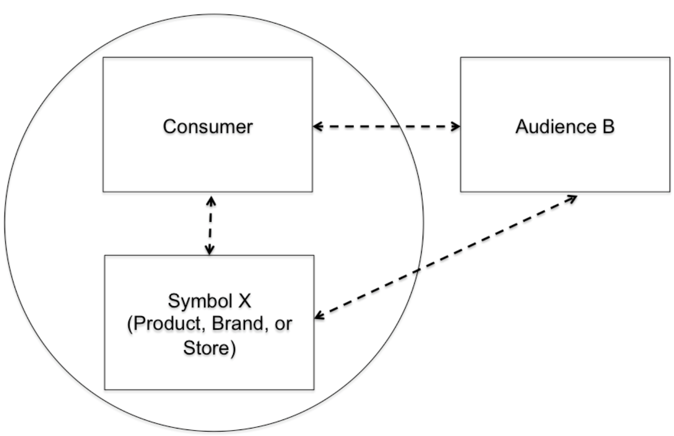

Figure 1. Conceptual Framework on the Similarities of Perceptions between Consumer and Independent Drugstore

Adopted from: Theory of Self-Concept (Grubb & Harrison, 1967:25)

The Pharmaceutical Industry
The pharmaceutical industry in the Philippines is a growing industry (PHAP, 2012). As of December 2009, the Food and Drug Administration's records show that there are 284 drug manufacturers, 438 drug traders, 634 drug importers, 4,719 drug distributors of which 3,956 are wholesalers, and 32,538 retail outlets. The number of village retails outlets is likewise rapidly growing. Meanwhile, the Food and Drug Administration and the Department of Health have been recently given stronger regulatory powers. Reyes et al. (2011) described that the pharmaceutical industry is dominated by large enterprises. Over 80 percent of the market is captured by the top 20 pharmaceutical companies (HAI, nd). The multi-billion pesos pharmaceutical industry is led by a retailer chain – Mercury Drug which made around P71 billion in net sales in 2008. This was followed by a giant distributor – Zuellig Pharma with a net sales amounting to P57 billion. United Laboratories, a local manufacturer, came in third with around 23 billion. Several multinationals continue to dominate the rest of the top spots. These are Wyeth Philippines, Bristol Myers Squibb, GlaxoSmithkline, Abbott Laboratories, Pfizer, Roche, Boehringer Ingelheim, Bayer, and Novartis. Reyes et al. (2011:20) PHAP (2012:67) cited that the growth of unbranded medicine sales in the Philippines competed on the sales volume of the branded medicine.

Research Design and Methodology

The Research Design
Our study used a descriptive research and survey method. Descriptive design attempts to describe what is and it documents aspects of a situation as it naturally occurs and sometimes serves as a starting point for hypothesis generation or theory development (Polit & Beck, 2010). Our study involved description, analysis, and interpretation the factors that triggered the sales of independent drugstores based on the current prevailing conditions, as perceived by the independent drugstore operators and customers. Polit and Beck (2010) obtained information about the prevalence, distribution and interrelations of variables within a population through survey.

The Research Instrument
This research utilized questionnaires to ensure some amount of uniformity from one measurement situation to another because of the item's standardized wordings, questions and instructions for recording responses (Polit & Beck, 2010). Close-ended questions were used in the form of a checklist, in addition to an open-ended question.

Respondents
Our research randomly selected the respondents of the study were the operators and customers of independent drugstores in San Pablo City (Anderson, Sweeney, & Thomas, 2015). Operators were the managers, owners, pharmacists, or the persons who were entrusted with the operation of the independent drugstores. Operators of the independent drugstores were chosen since they were the ones who are hands- on in the operation of the business; hence, they were presumed to have learned insights on what works for the business. Customers were also included respondents to strengthen the findings. Customers are the ones buying the medicine and not necessarily the ones taking the medicines. The respondents in this study belonged to two groups; the group of independent drugstore operators and that of the customers. The representative number of independent drugstores was 45 and the representative number of customers was 399. Overall, there were 444 respondents, 10 percent of whom were independent drugstore operators and 90 percent were their customers, as shown in Table 1. The total population of the customers was recently estimated to be 237,259, based on the total population of San Pablo City, and that there are 51 independent drugstore operators.

Data Analysis
Our research had quantitative analysis to provide meaningful analysis about significant differences between the perceptions of customers and independent drugstores. Rank, arithmetic mean and test of proportions were applied (Anderson, Sweeney, & Thomas, 2015). Arithmetic mean was used to compute the relative frequencies while test of proportion was used to test whether there is no significant difference between the independent drugstore operators' and customers' perceptions on the factors affecting the sales of independent drugstores (Anderson, Sweeney, & Thomas, 2015). This research computed z-test of proportions as appropriate test statistics at 0.05 level of significance (Anderson, Sweeney, & Thomas, 2015).

Results and Discussion

Table 1. Respondents' Demographic Profile

Group	Gender				Total
	Male	Relative Frequency (%)	Female	Relative Frequency (%)	(by group)
Independent drugstore operators	15	33	30	67	45
Customers	170	43	229	57	399
Total (by gender)	185	42	259	58	444
	Civil Status				
	Single	**Relative Frequency (%)**	**Married**	**Relative Frequency (%)**	**Total (by group)**
Independent drugstore operator	14	31	31	69	45
Customer	209	52	190	48	399
Total (by civil status)	223	50.2	221	49.8	444
	Age				
	Independent drugstore operators	**Relative Frequency (%)**	**Customers**	**Relative Frequency (%)**	
18 and below	2	04.44	40	10.03	
19-25	5	11.11	154	38.60	
26-35	6	13.33	77	19.30	
36-45	18	40.00	65	16.29	
46-60	14	31.11	50	12.53	
61 and above	0	00.00	13	03.26	
Total	45		399		
	Monthly Income				
	Independent drugstore operators	**Relative Frequency (%)**	**Customers**	**Relative Frequency (%)**	
A- >Php 60,000/month	9	20	15	4	
B- Php30,000 to 59,999/month	17	38	36	9	
C- Php6,000 to 29,000/month	15	33	138	34	
D- < Php6,000/month	4	9	210	53	
Total	45		399		

Most of the respondents in the independent drugstore operator group belonged to class B at 38 percent, while most of the respondents in the customer group belonged to class D at 53 percent, as shown in Table 1. The higher income of the drugstore operators was expected since a certain capital is needed in order to operate a business. It was not surprising if the customers of independent drugstores in San Pablo City belonged to the lower brackets, although some might be in the middle or even higher socio-economic status. Out of the 45 independent drugstore operators and 399 customers, the multi-responses showed the perceptions of the respondents on triggers that increase sales of drugstores as shown in Table 2.

Table 2. Independent Drugstore Operators' and Customers' Perception on the Factors Affecting Drugstores' Sales

Factors Affecting the Sales of Independent drugstores	Independent drugstore operators' perceptions (no. of respondents: n=45)	Relative Frequency (%) with Rank indicated	Customers' perceptions (no. of respondents: n=399)	Relative Frequency (%) with Rank indicated
Internal Factors				
Price	34	76 rank 2	320	80 rank 1
Location	35	78 rank 1	254	64 rank 3
Quality of products	35	78 rank 1	292	73 rank 2
Customer service	30	67 rank 3	183	46 rank 7
Quality of services	28	62 rank 4	197	49 rank 5
Availability of medicines	30	67 rank 3	240	60 rank 4
Ease of Access	15	33 rank 9	078	20 rank 17
Countervailing power	08	18 rank 12	035	9 rank 20
Suppliers and relationship to suppliers	22	49 rank 5	101	25 rank 15
Customer knowledge	17	38 rank 8	111	2 rank 14
Store image	30	67 rank 3	188	47 rank 6
Availability of Credit	07	16 rank 13	048	12 rank 19
Giving option to buy in small amounts	21	47 rank 6	143	36 rank 12
Economic conditions like changing GNP and inflation rate	18	40 rank 7	164	41 rank 9
Changing environment	10	22 rank 11	169	42 rank 8
Ill designed laws	06	13 rank 14	054	14 rank 18
Regulations	11	24 rank 10	152	38 rank 11
Unfair trade practices	07	16 rank 13	091	23 rank 16
Rapid competition	22	49 rank 5	138	35 rank 13

On the other hand, most customers perceived that price affect sales of independent drugstores. Eighty percent of customers had common perceptions about price. Customer knowledge obtained the lowest percentage among the fourteen internal factors.

Is there a significant difference between the independent drugstore operators' and customers' perceptions regarding the factors affecting the sales of independent drugstores?

Computed test statistic, at 5 percent significance level, greater than the tabular value meant that the null hypothesis should be rejected, and also meant that there was significant difference between the perceptions of independent drugstore operators and customers. When the computed test statistics was less than the tabular value, the null hypothesis should not be rejected because there was no significant difference between the perceptions of the independent drugstore operators in San Pablo City and their customers, as summarized in Table 3.

Table 3. **Significant Difference between the Independent Drugstore Operators' and Customers' Perceptions**

Factors Affecting the Sales of Independent drugstores	P	S_{DP}	Test statistic	Interpretation
Internal Factors				
Price	.78	.06	0.61	Not significant
Location	.65	.07	1.87	Not significant
Quality of products	.74	.06	0.72	Not significant
Customer service	.48	.07	2.67	Significant
Quality of services	.50	.07	1.65	Not significant
Availability of medicines	.61	.07	0.91	Not significant
Ease of Access	.21	.06	2.03	Significant
Countervailing power	.10	.04	1.91	Not significant
Suppliers and relationship to suppliers	.27	.06	3.44	Significant
Customer knowledge	.29	.07	1.40	Not significant
Store image	.49	.07	2.54	Significant
Availability of Credit	.12	.05	0.78	Not significant
Giving option to buy in small amounts	.37	.07	1.45	Not significant
Advertisements	.39	.07	0.91	Not significant
External Factors				
Economic conditions like changing GNP and inflation rate	.41	.07	0.13	Not significant
Changing environment	.40	.07	2.60	Significant
I'll designed laws	.14	.05	0.18	Not significant
Regulations	.37	.07	1.85	Not significant
Unfair trade practices	.22	.06	1.08	Not significant
Rapid competition	.36	.07	1.85	Not significant

$\alpha = 0.05$ Tabular value= 1.96

The following null hypotheses were tested and interpreted.

H1. There is no significant difference between the ratings by the drugstore operators' and customers on price as a factor affecting the sales of independent drugstores.
Test statistics was 0.61. It was below the tabular value of 1.96; hence, the null hypothesis was not rejected (p>.05). Thus, there is no significant difference between the independent drugstore operators' and customers' perception regarding price. This result agrees with the finding of Goel (1999) who claimed that cheaper product is one of the factors that lead customers in developing countries to buy medicines in retail pharmacies. Since San Pablo City is in the Philippines, a developing country, this consideration on price is true. Greater availability and lower prices on targeted food and beverage items from vending machines was associated with greater purchases of these items over an eighteen-month period (Yoon et al., 2014). Efforts to promote healthful food purchases in worksite settings should incorporate these two strategies (French & Hannan, 2010). The results emphasized the association of price to increase sales accords, similar with the findings of Goel (1999) that cheaper prices of medicines attract more customers. Cheaper prices described were relative to the comparison made by the customers as also viewed by Xia et al. (2004). With the lower income bracket of most of the customers than the sellers, customers' countervailing power were weaker as also explained by Ellison (2010).

H2: There is no significant difference between the ratings by the drugstore operators' and customers on quality of products as a factor affecting the sales of independent drugstores.
Test statistics was 0.72. It was below the tabular value of 1.96; hence, the null hypothesis was not rejected (p>.05). There is no significant difference between the independent drugstore operators' and customers' perception regarding

quality of products. The quality is a distinctive competency, a factor that increases profitability of retail stores (Stevenson, 2015). This implies that the principle also applies to independent drugstore, it being a type of a retail store (Stevenson, 2015). The respondents described their experiences with sales representative's knowledge dissemination about quality medicine, as also found important by Das & Hammer (2014). The quality of product was important to both consumers and sellers, as also viewed by Moe (2009). When medicine also served as social symbols, the respondents agreed that they paid more for quality medicine, as also explained by the theory of self-concept of Grubb & Harrison (1967). Common perceptions among the operators and their customers about the quality medicine and the factors that influence sales of independent drugstores are observed to happen when conditions explained by the theory of self-concept were present. In addition, loss of confidence in the health system is one of the impacts of poor quality medicines similar to impacts of poor quality medicines in the arguments of Newton et al. (2010).

H3: There is no significant difference between the ratings by the drugstore operators' and customers on ease of access as a factor affecting the sales of independent drugstores.
Test statistic was 2.03. It was above the tabular value of 1.96; hence, the null hypothesis was rejected ($p<.05$). There is a significant difference between the independent drugstore operators' and customers' perceptions regarding ease of access. Significant difference on ease of access can be explained by the researcher's observation that there are other factors more important to customers in choosing the independent drugstore where they will buy medicines, for example, price, availability of medicines or they are already "suki" or loyal buyers of a drugstore. Overall, the research empirically demonstrates that gratitude plays an important role in understanding how relationship marketing and investments increase purchase intentions, sales growth, and share of wallet (Palmatier, et.al, 2009). This supports the aforementioned argument for such significant difference in drugstore operators' and customer's perception on ease of access (Wonguphasawat, et al., 2008; Inman et al., 2009). Several ways (e.g., promotion, price, merchandise, supply chain and location) to deliver a superior customer experience are identified which should result in higher customer satisfaction, more frequent shopping visits, larger wallet shares, and higher profits (Grewal, et. al, 2009) It also, made mention of location, identifying it in relation to expected results for higher customer satisfaction and higher sales. Inman et al. (2009) is right in saying that category characteristics, such as ease of access, purchase frequency and displays, and customer characteristics, such as household size and gender, affect in-store decision-making.

H4. There is no significant difference between the ratings by the drugstore operators' and customers on customer service as a factor affecting the sales of independent drugstores.
Blodgett and Wakefield (1995) is true in viewing that the remedied problems of dissatisfied customers can bring the likelihood of success in sales. Although Wonguphasawat et al. (2008) believed in the importance of customer service, there was still significant difference between the perception of independent drugstores and customers. Again, Grubb & Harrison (1967) explained that common perceptions among the operators and there are observed to happen when conditions explained by the theory of self-concept were present, otherwise, there were different perceptions. Based on noted observations, it may be attributed to the weight of the principle of customer service on the independent drugstore operators and customers. Independent drugstore operators are more mindful of it than the customers since they have the responsibility to perform an excellent customer service to their customers (Wonguphasawat et al., 2008). The study of Mardanov and Ricks (2013) were right in saying that the income levels of the customers of independent drugstores influence varying drug-purchasing behavior and loyalty to a pharmacy. Kulumbekova (2017) also has similar view on the importance of service quality. Compared with the research of El-Kholy and Abdel-Latif (2017), the respondents in Saudi Arabia have higher level of income and they value community pharmacists' professionalism and pharmaceutical services. Null hypothesis is rejected because test statistics which is 2.67 and is less than tabular value which is 1.96 ($p<.05$).

H_o5: There is no significant difference between the ratings by the drugstore operators' and customers on the availability of medicine as a factor affecting the sales of independent drugstores.
Test statistics was 0.91. It was below the tabular value of 1.96; hence, the null hypothesis was not rejected ($p>.05$). There is no significant difference between the independent drugstore operators' and customers' perceptions regarding availability of medicines. The results are different with the study of Hasan et al. (2013) because unavailability of medicine in UAE is of lesser concern. Christy (2002) is in agreement with the results of this research on the need to make medical products always available in the market. Both drug operators and customers view the importance of availability of medicine to prosper drugstores businesses, similar with the views Su & Zhang (2009).

Conclusions and Recommendations

Conclusions

The perceptions of the drugstore operators reflect most of the needs of the customers. Most of the independent drugstores perceived location and quality of products trigger most the sales of independent drugstores while most customers perceived that it is price. Independent drugstore operators perceive location while most customers select price as the most important. However, the perceptions of independent drugstore operators and customers differ on customer service, ease of access, suppliers and relationship to suppliers, store image and changing environment. (1) The independent drugstores and customers have common perception about the importance of price, location, quality of products, and availability of medicine. These factors describe the fundamental requirements of drugstores' customers. (2) The perceptions of the independent drugstore operators in San Pablo City and their customers have significant difference on customer service, ease of access, suppliers and relationship to suppliers, and store image, and on the changing environment. The customers of drugstores know best their needs, wants, and value requirements and it important to cater to them in the areas of customer service and ease of access. The results described the limited marketing investments of independent drugstores to emphasize on brands, experiences, self-recognition and self-concept. (3) Most of the independent drugstore operators in San Pablo City perceive that location and quality of products would affect the sales of independent drugstores while most customers believe that it is price that triggers the sales of independent drugstores. The different brackets of the income of drugstore operators and their customers explain the differences in their primary requirements.

Recommendations

This study recommends the pharmaceutical companies to regularly invest in market intelligence and empirical observation with the drugstore operators and occasionally invest in consumer market survey that can be more costly. This study also recommends researchers and independent drugstore operators in the pharmaceutical industry to conduct further study on customers of drugstores, as respondents, about customer service and ease of access because of the differences in the views between the drugstores and their customers. Fundamental requirements for a profitable store business must not be sacrificed. Reinforce drugstore business by selling quality products, assuring the availability of medicines, and providing competitive prices to maintain existing and new customers. Consider ethics as an internal strength.

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AN EMPIRICAL ANALYSIS OF SOUTH AFRICAN BANK PROFITABILITY

Marno Booyens, University of Johannesburg, South Africa
Keshiv Nayagar, University of Johannesburg, South Africa
Corlise L. le Roux, University of Johannesburg, South Africa

The banking sector fulfils a fundamental role within the economy of a country. In South Africa, this sector contributes in excess of 20 percent toward GDP, and is responsible for more than 10 percent of overall employment in the country. This study empirically investigates the most significant determinants of South African bank profitability by examining bank-specific internal and macroeconomic external factors under a panel regression framework. The four largest commercial banks in South Africa as well as South Africa's largest alternative banking institution were examined between 2006 and 2015. Based on the results obtained, this study concludes that both bank-specific internal as well as macroeconomic external variables are statistically significant determinants of South African bank profitability. The variables of asset quality, capital strength, operational efficiency, economic activity (GDP), annual inflation and the real interest rate were found to be statistically significant. Capital strength, GDP, annual inflation and the real interest rate respectively displayed positive relationships to bank profitability, whereas asset quality and operational efficiency displayed inverse relationships to bank profitability.

Introduction

The banking sector plays a fundamental role in the economic framework of a country (Demirgüç-Kunt & Huizinga, 1999). A bank may be described as a financial institution whose primary activities include receiving deposits with the aim of providing loans and investment (Wuite, 2009). Fundamentally, banking institutions perform the role of matching surplus and deficit units within an economy (Wuite, 2009). According to Greenberg and Simbanegavi (2009), the performance of a country's banking sector has been shown to have a direct relationship to the economic well-being of a country. Alper and Anbar (2011) share similar views and further discuss how economies with a robust and profitable banking sector are better equipped to handle adverse economic conditions and financial downturns. Ifeacho and Ngalawa (2014) provide further context for these sentiments by describing how the South African banking sector contributes in excess of 20 percent toward South African GDP and is responsible for more than 10 percent of overall employment in the country. The banking sector therefore play a vital role within the South African economy. During the sample period under study, Kumbirai and Webb (2010) have noted that the South African banking sector became increasingly competitive, with expenses rising due to technological and financial innovation, the entry of large international banks to the market, and regulatory requirements that became increasingly stringent. It therefore becomes invaluable for strategic-level bank management to thoroughly understand the factors that affect the profitability of their business in an environment that is not only highly competitive, but where other aspects such as progressively stringent regulation and increasing costs make attaining healthy levels of profitability a challenge.

Within the current sphere of economic and financial literature, numerous studies regarding the determinants of bank profitability in various international markets such as Brazil, Korea, Macau, Nigeria, Pakistan, the Philippines, the Ukraine and Tunisia may be found. The fact that similar research has been conducted and is perceived to make a valuable contribution in numerous other international markets, provides further substantiation for a similar line of research to be pursued for the South African case. In addition, Kumbirai and Webb (2010) have previously discussed how research pertaining to bank performance in South Africa is relatively limited and have proposed that research by both scholars and industry specialists in the area of bank performance is justified and welcomed in the face of rises in global bank failures, following global financial crises.

Macroeconomic variables that are external to banks are specifically significant, as banks have no control over these factors. The work of Sharma and Mani (2012) illustrates this point by showing how primary banking business associated with the lending and borrowing of funds is significantly affected by a country's macroeconomic determinants. McLeay, Radia and Thomas (2014) share these views, and further explain how bank profitability depends on the spread between the rate of interest on bank assets and bank liabilities. The rate of interest on these assets and liabilities relies directly on the policy rate set by the central bank, which in turn is influenced by macroeconomic variables (McLeay, Radia & Thomas, 2014). The significance of the effect of macroeconomic variables as a determinant of bank profitability has been further substantiated in many other studies within the current body of financial literature (Acaravci & Calim, 2013; Allen & Saunders, 2004; Sufian & Habibullah, 2009).

Bank-specific internal variables are equally important to enable the efficient management of risk associated with a bank's primary business activities of lending and borrowing and have been found to be key drivers of bank failure (Athanasoglou et al., 2008). The significance of bank- specific internal variables as a determinant of bank profitability has been further substantiated in many other studies within the current body of financial literature (Francis, 2013; Gul, Irshad & Zaman, 2011; Sufian & Habibullah, 2009). Internal determinants of bank profitability commonly include measures of capital adequacy, measures of operational efficiency, measures of liquidity, measures of asset quality and measures of size of the respective bank (Acaravci & Calim, 2013; Alper & Anbar, 2011). Vong and Chan (2009) further discuss that these bank-specific internal determinants are directly influenced by management decisions. Therefore, a comprehensive understanding of how macroeconomic external and bank-specific internal determinants affect the profitability of banks within the banking sector of South Africa is critical in enabling strategic-level bank management to respond to these factors as swiftly and efficiently as possible. In addition, a comprehensive understanding of these determinants may serve to mitigate the risk of poor financial performance and potential bank failure in the future.

Previous research that has been conducted in South Africa pertaining to determinants of bank profitability has utilized various methodologies, such as the work of Ifeacho and Ngalawa (2014) and Kumbirai and Webb (2010). This research has focused on financial performance of the South African commercial banking sector by investigating bank-specific internal factors, industry-specific factors, and macroeconomic determinants. However, in concentrating solely on the commercial banking sector of South Africa, prior research has ignored other significant South African banking sectors such as the alternative banking sector, which has enjoyed increasing popularity among the low-income demographic within South Africa. Alternative banks may be described as banking institutions that target entry-level or lower income markets, such as Capitec Bank (Bankseta, 2013).

The study aims to determine what are the internal and external determinants of profitability within the banking sector of South Africa? The study further aims to determine which bank-specific internal and macroeconomic external factors and the relationships observed (either positive or negative) between the statistically significant determinants of South African bank profitability by means of a panel regression analysis in order to better enable bank management to respond to these identified factors, thereby mitigating the risk of poor financial performance and potential bank failure in the future.

Data and Methodology

This research aimed to identify the bank-specific internal and macroeconomic external determinants of profitability within the commercial banking sector of South Africa. A quantitative research design was developed under a positivist research paradigm. The four largest commercial banks in South Africa (Absa, FirstRand Bank, Nedbank and Standard Bank) and one alternative banking institutions (Capitec Bank) was included in the analysis. A panel regression framework was followed with ROAA serving as the dependent variable, while independent variables included the bank-specific internal and macroeconomic external variables in the model. The panel data technique has been selected for use in this study due to the techniques ability to capture the dynamic behaviour of the specific model parameters (Brooks, 2008). Data pertaining to bank-specific internal factors for the specified sample period was obtained from the Bankscope database for all banks observed (Bankscope, 2016). Independent variables pertaining to the macroeconomic external variables were obtained from the World Bank database (World Bank, 2015). Only secondary data were utilised in this study, with annual data observations from December 2006 to December 2015.

The dependent and independent variables utilised in this study are now discussed. Profitability as measured by the return on average assets (ROAA) of the respective banks, served as the dependent variable in this research study. Return on assets is an indicator of how effectively a bank utilizes its assets to generate income (Davydenko, 2010). The independent variable is understood as the variable predicted to influence the dependent variable (Zikmund, 2003). The macroeconomic external and bank-specific internal determinants included in the study served as independent variables in the regression equations and were included based on the financial literature in other international banking sectors that have indicated these variables to be significant determinants of profitability. Internal determinants of bank profitability denote the respective bank-specific variables examined in this study. Asset quality was included in the study to consider the overall health of the loans issued within a bank's asset portfolio, and can be measured by many financial ratios (Kumbirai & Webb, 2010). For the purpose of this study, asset quality was measured by the loan loss reserve to gross loans ratio (LRGL), as previously used in the work of Kosmidou (2008) and Kumbirai and Webb (2010). The LRGL is calculated as follows:

$$LRGL\ ratio = \frac{loan\ loss\ reserve}{gross\ loans} \quad [1]$$

Where loan loss reserve refers to the total reserve allocated for potential loan losses and gross loans refers to total loans issued. The work of Ahmad et al. (2007), Athanasoglou et al. (2008) and Miller and Noulas (1997), found a statistically significant negative relationship between asset quality and bank profitability. Conversely, the work of Sufian and Habibullah (2009) found a statistically significant positive relationship between asset quality and bank profitability. This finding is in line with the prior work of Berger and DeYoung (1997). In light of the above discussion, the first proposition of this study is as follows:

P1. There is either a positive or negative relationship between asset quality and bank profitability.

Capital strength was included in the study to consider the relationship between a bank's capitalization and its overall profitability. Capital strength has been examined in numerous international bank profitability studies. For the purpose of this study, capital strength was measured by the ratio of equity divided by total assets (EQAS), as previously used in the work of Dietrich and Wanzenried (2011), Gharaibeh (2015), Pasiouras and Kosmidou (2007), Rao and Lakew (2012), and Sufian (2011). The EQAS ratio provides an indication of capital adequacy and overall financial strength with regard to a bank's ability to endure losses and efficiently manage risk exposure (Dietrich and Wanzenried, 2011). The EQAS ratio is calculated as follows:

$$EQAS = \frac{Shareholder\ Equity}{Total\ assets} \quad [2]$$

Where Equity refers to the book value of shareholder equity and Total Asset refers to the book value of total assets for each bank. Sufian and Habbibullah (2009) argued the importance of capitalization in explaining bank profitability, and also acknowledged the ambiguity present in the financial literature around the significance of capitalization on bank profitability. Most of the literature consulted however, indicated a statistically significant positive relationship between capital strength and bank profitability. These included the works of Demirgüç-Kunt and Huizinga (1999), Javaid et al (2011), Pasiouras and Kosmidou (2007) and Staikouras and Wood (2011). The second proposition of this study is therefore specified as follows:

P2. There is a positive relationship between capital strength and bank profitability.

Operational efficiency was included in this study to examine the effect of operational costs on overall bank profitability. The effect of operational efficiency on bank profitability has been examined in numerous international bank profitability studies. For the purpose of this study, operational efficiency was measured by the cost to income ratio in line with the work of Alexiou and Sofoklis (2009), Dietrich and Wanzenried (2011), and Pasiouras and Kosmidou (2007). The cost to income ratio is calculated as follows:

$$Cost\ to\ Income\ ratio = \frac{Operating\ Expenses}{Total\ Revenue} \quad [3]$$

Where Operating expenses represents expenditure pertaining to administration, staff salaries and property costs but excludes losses as a result of impaired or non-performing loans, and Total revenue represents total revenue earned for each commercial and alternative bank respectively (Dietrich & Wanzenried, 2011). The work of Alexiou and Sofoklis (2009), Athanasoglou et al. (2008), and Dietrich and Wanzenried (2011) all showed a statistically significant negative relationship between operating expenses and bank profitability. Therefore, the third proposition of this study is:

P3. There is a negative relationship between operating cost and bank profitability.

Liquidity is included in this study to examine the relationship between a bank's ability to timeously satisfy all financial obligations and overall bank profitability. According to the work of Samad (2004:8), the liquidity of a bank can be understood as: 'how quickly a bank can convert its assets into cash at face value to meet the cash demands of the depositors and borrowers.' In the current financial literature, many variables are used to account for liquidity in various international banking studies. For the purpose of this study, liquidity was measured by the net loans to total assets ratio (NLTA), as previously used in the work of Francis (2013), Kumbirai and Webb (2010), Samad (2004), and Rao and Lakew (2012). The NLTA can be calculated as follows:

$$NLTA\ ratio = \frac{Net\ loans}{Total\ Assets} \quad [4]$$

Where Net Loans represents the total loan value of the bank and Total Assets refers to the book value of total assets for each commercial and alternative bank respectively. The effect of liquidity on bank profitability has been examined in numerous international bank profitability studies, with many studies reporting opposing views regarding the significance of liquidity on bank profitability. The work of Molyneux and Thornton (1992) and Nisar, Susheng, Ahmed and Ke (2015) found a statistically significant negative relationship between liquidity and bank profitability. Conversely, the work of Bourke (1989) and Haron (2004) found a statistically significant positive relationship between liquidity and bank profitability. Therefore, the fourth proposition of this study is:

P4. There is either a positive or negative relationship between liquidity and bank profitability.

External determinants of bank profitability denote the respective macroeconomic variables examined in this study. GDP can be formally defined as 'the total value of all final goods and services produced within the geographic boundaries of a country in a particular period' (Mohr, 2011: 20). According to the work of Sharma and Mani (2012), GDP is a frequently used as a proxy to account for total economic activity in a country. Therefore, GDP was included in this study to examine the relationship between total economic activity and the profitability of commercial and alternative banks in South Africa. The effect of GDP on bank profitability has been examined in numerous international bank profitability studies. The work of Sufian and Habibullah (2009) suggested that GDP may play a significant role on the aspects that affect the supply and demand of loans and deposits in a country. Sharma and Mani (2012) shared these sentiments and further discussed that the growth and profitability of a bank may be restricted by the GDP of a country.

For the purpose of this study, GDP was measured by the real GDP annual growth rate of South Africa. The work of Acaravci and Calim (2013), Gul et al. (2011), and Sharma and Mani (2012), and found a statistically significant positive relationship between GDP and bank profitability. In light of this, the fifth proposition of this study is:

P5. There is a positive relationship between economic activity and bank profitability

According to the work of Alper and Anbar (2011:145), the annual inflation rate 'measures the overall percentage increase in the Consumer Price Index (CPI) for all goods and services. Inflation affects the real values of costs and revenues'. Therefore, inflation was included in this study to examine the relationship between the rate of increase in the price of goods and services and the profitability of commercial banks in South Africa. Sharma and Mani (2012) further discuss that the relationship between inflation and bank profitability can be explained through the effect of inflation on the interest rate and asset prices in a country.

For the purpose of this study, inflation in South Africa was measured by the total CPI in annual terms, in line with the work of Alper and Anbar (2011), Bourke (1989), and Molyneux and Thornton (1992). The effect of inflation on bank profitability has been examined in numerous international bank profitability studies, with many studies reporting opposing views. The work of Alexiou and Sofoklis (2009) and Gul et al. (2011) indicated the inflation rate to have a positive relationship with bank profitability. Conversely, the work of Ali et al. (2011), Sayilgan and Yildirim (2009), and Sufian and Chong (2008), and showed a negative relationship between the inflation rate and bank profitability. Therefore, the fifth proposition of this study is:

P6. There is either a positive or negative relationship between annual inflation and bank profitability

Brealey, Myers and Allen (2011) describe the real interest as the rate of interest expressed in terms of real goods that have been adjusted to remove the effects of inflation. The real interest rate provides an indication of a bank's general cost of funds (Abreu & Mendes, 2001). As stated in the work of Sharma and Mani (2012), a primary business activity of a bank is the lending of funds in the form of loan provisions to borrowers. Garcia-Herrero et al. (2009) further discuss that the repayment ability of a bank's borrowers is affected by the real interest rate. Therefore, any variation in a borrower's ability to repay bank loans may pose a significant effect to overall bank profitability.

These views are supported in the work of Ifeacho and Ngalawa (2014), who suggest that increasing interest rates are followed by increases in non-performing loans that ultimately decrease bank profitability. Conversely, Alper and Anbar (2011) found a positive relationship between the real interest rate and bank profitability. Therefore, the real interest rate was included in the study to examine this relationship for the commercial and alternative banks of South Africa, in line with the previous work of Alper and Anbar (2011), Garcia-Herrero et al. (2009), Ifeacho and Ngalawa (2014), and Vong and Chan (2009), and. In light of this discussion, the sixth proposition of this study is:

P7. There is either a positive or a negative relationship between the real interest rate and bank profitability.

The level of unemployment in South Africa is a highly important economic problem that hampers economic growth through the decrease in gross national income and aggregate demand (Ifeacho & Ngalawa, 2014). The relationship between the level of unemployment and bank profitability was included in this analysis based on the prior work of Abreu and Mendes (2001) and Ifeacho and Ngalawa (2014), who found a significant effect of unemployment on bank profitability. The work of Louzis, Vouldis and Metaxas (2012) found that increases in the unemployment rate increase the level of non-performing loans for banks, ultimately decreasing overall bank profitability. These sentiments are shared in the work of Abreu and Mendes (2001), Heffernan and Fu (2008) and Ifeacho and Ngalawa (2014). The level of unemployment was therefore included in this study to examine its effect on the commercial banking sector of South Africa.

The level of unemployment was measured by the annual unemployment rate (the percentage of the total labour force that is without work, but available for and seeking employment) obtained from the World Bank database (World Bank, 2015). The work of Ifeacho and Ngalawa (2014) has shown a negative relationship between the unemployment rate and bank profitability. A similar result was obtained in the work of Abreu and Mendes (2001). Therefore, the eighth proposition of this study is:

P8. There is a negative relationship between bank profitability and the level of unemployment.

Panel data refers to data sets that comprise both cross-sectional and time series components (Koop, 2009). Three panel data models were utilised to analyze the data and achieve the research objectives of this dissertation. These included the Pooled OLS (Ordinary Least Squares) Model, the Fixed Effects Model (FEM) and the Random Effects Model (REM). The empirical steps followed when conducting the analysis are now presented, followed by a description and specification of each panel data model utilised.

The multiple regression equation that underlies the panel data models utilised in this empirical analysis may be specified as follows:

$$ROAA_{it} = \alpha + \beta_1 AQ_{it} + \beta_2 CAP_{it} + \beta_3 OP_{it} + \beta_4 LIQ_{it} + \beta_5 INT_{it} + \beta_6 INF_{it} + \beta_7 GDP_{it} + \beta_8 EMP_{it} + u_{it} \quad [5]$$

where:

$ROAA_{it} = Return\ on\ Average\ Assets\ for\ commercial\ and\ alternative\ banks$

$\beta_1 AQ = Asset\ quality$

$\beta_2 CAP = Capital\ strength$

$\beta_3 OP = Operational\ efficiency$

$\beta_4 LIQ = Liquidity$

$\beta_5 INT = Real\ interest\ rate$

$\beta_6 INF = Inflation\ rate$

$\beta_7 GDP = Real\ annual\ GDP\ growth\ rate$

$\beta_8 EMP = Unemployment\ rate$

$\alpha = constant\ term$

$t = time\ period\ (years)$

$u = error\ term$

Empirical Results

The fixed effects model was found to be most appropriate to analyze the data of the South African commercial banks included in this study. The fixed effects model allows for heterogeneity or individuality to be expressed among the cross sections of the data by allowing each cross section to have its own intercept, where the unique attributes of each specific cross section may be revealed (Gujarati, 2011; Ranjan & Agrawal, 2011). Under this model specification, the denial of heterogeneity among cross sections as experienced in the pooled OLS model was overcome. Thus, the individuality and unique attributes associated with each South African bank were made apparent and were not accounted for in the error term of the model. The linear equation for the fixed effects model can be stated as follows:

$$ROAAit = \propto i + \beta 1AQit + \beta 2CAPit + \beta 3OPit + \beta 4LIQit + \beta 5INTit + \beta 6INFit + \beta 7GDPit + \beta 8EMPit + uit \quad [6]$$

Where *ROAAit* denotes the dependent variable, β1 to β8 denotes the coefficients of the independent variables as shown; i denotes the intercept value for each cross section, t denotes the time period, μ denotes the error term and $\propto$ denotes the constant term. Table 1 illustrates the results obtained while following the fixed effects model specification for the five South African banks between the periods 2006 to 2015.

Table 1. Results Obtained From the Fixed Effects Model (FEM) Specification

Explanatory Variable	**Coefficient**	**P-value**	**Null Hypothesis on a 95% confidence level**	**Statistical Significance on a 95% confidence level**
Asset quality (AQ)	-0.40	0.00	Accept	Statistically significant
Capital strength (CAP)	0.12	0.00	Reject	Statistically significant
Operational efficiency (OP)	-0.04	0.00	Reject	Statistically significant
Liquidity (LIQ)	-0.01	0.12	Reject	Statistically insignificant
Economic activity (GDP)	0.05	0.00	Reject	Statistically significant
Annual inflation (INF)	0.05	0.02	Reject	Statistically significant
Level of unemployment (EMP)	0.06	0.16	Reject	Statistically insignificant
Real Interest rate (INT)	0.09	0.00	Accept	Statistically significant
Adjusted R-squared			0.95	
Prob (F-statistic)			0.00	

Source: Bankscope (2016) and author's deductions

Based on the results obtained from the fixed effects model presented in Table 4.8, it becomes clear that both bank specific internal determinants and macroeconomic external determinants are found to be significant determinants of bank profitability for the commercial banking sector of South Africa. This is in line with the prior work of Alexiou and Sofoklis (2009), Francis (2013), and Gharaibeh (2015).

The explanatory variable asset quality was found to be statistically significant on a 95 percent confidence level and displayed a negative relationship to bank profitability as measured by ROAA. For the purpose of this study, asset quality for the sampled banks was measured by the loan loss reserve to gross loans ratio (LRGL). The LRGL serves as an indication of expected loan losses where greater loan loss reserves provide an indication of poor loan portfolio quality expectations in the future (Ahmad et el., 2007). Based on the analysis conducted, it was determined that as the LRGL ratio increased, bank profitability as measured by ROAA displayed a corresponding decrease for the South African banks under study. Therefore, this finding was significant as it informs strategic-level bank management that bank profitability may be increased by closely monitoring asset quality and ensuring that expected loan losses are minimized.

The explanatory variable capital strength was found to be statistically significant on a 95 percent confidence level and displayed a positive relationship to bank profitability as measured by ROAA. For the purpose of this study, capital strength was measured by the equity to total assets ratio (EQAS) (Gharabei, 2015). The EQAS ratio provides an indication of capital adequacy and overall financial strength with regard to a bank's ability to endure losses and efficiently manage risk exposure (Dietrich and Wanzenried, 2009). Gul et al. (2011) discussed that better capitalized banks with a higher capital ratio can more easily conform to regulatory capital standards so that surplus capital can be lent out and used to increase profitability. Based on the analysis conducted, it was determined that as the EQAS ratio increased, bank profitability as measured by ROAA displayed a corresponding increase for the South African banks under study. Therefore, this finding is significant as it informs strategic-level bank management that profitability may be increased by ensuring that South African banks are well capitalized at all times.

The explanatory variable operational efficiency was found to be statistically significant on a 95 percent confidence level and displayed a negative relationship to bank profitability as measured by ROAA. For the purpose of this study, operational efficiency was measured by the cost to income ratio (Dietrich & Wanzenried, 2009). The cost to income ratio provides an indication of the change in the expenses of a business relative to revenue or income generated (Wuite, 2009). Based on the analysis conducted, it was determined that as the cost to income ratio increased, bank profitability as measured by ROAA displayed a corresponding decrease for the South African banks under study. Therefore, this finding is significant as it informs strategic-level bank management that profitability may be increased by aiming to minimize expenses incurred relative to income produced.

The explanatory variable economic activity (GDP) was found to be statistically significant on a 95 percent confidence level and displayed a positive relationship to bank profitability as measured by ROAA. GDP plays a significant role on the aspects that affect the supply and demand of loans and deposits in a country (Sufian & Habibullah, 2009). During times of economic upswings, the demand for lending increases, which in turn increases overall bank profitability as banks experience increases in their number of loans issued (Dietrich & Wanzenried, 2011). Based on the analysis conducted, it was determined that as economic activity increased, bank profitability as measured by ROAA displayed a corresponding increase for the South African banks under study. Therefore, this finding is significant as it informs strategic-level bank management that profitability may be increased in times of greater economic activity or positive economic growth. Constructive economic environments positively affect the demand for and supply of banking services, thereby increasing overall bank profitability (Sufian, 2011).

The explanatory variable annual inflation was found to be statistically significant on a 95 percent confidence level and displayed a positive relationship to bank profitability as measured by ROAA. Inflation as measured by the consumer price index (CPI) was included in this study to examine the relationship between the rate of increase in the price of goods and services and the profitability of the South African banks. Based on the analysis conducted, it was determined that as inflation levels increased, bank profitability as measured by ROAA displayed a corresponding increase for the South African banks under study. Therefore, this finding is significant as it informs strategic-level bank management that profitability may increase in times of rising inflation levels. This finding could be due to the fact that banks are able to forecast more accurately and increase their income generated faster than the corresponding rise in the CPI.

The explanatory variable real interest was found to be statistically significant on a 95 percent confidence level and displayed a positive relationship to bank profitability as measured by ROAA. The real interest rate can be described as the rate of return that has been adjusted for inflation and measures the growth of the actual purchasing power of money over time (Bodie et al., 2011; Wuite, 2009). Based on the analysis conducted, it was determined that as the real interest rate increased, bank profitability as measured by ROAA displayed a corresponding increase for the South African banks under study. Therefore, this finding is significant as it informs strategic-level bank management that profitability may be increased in times where the actual purchasing power of the Rand strengthens relative to prevailing inflation levels in the country.

The explanatory variables liquidity and level of unemployment were found to be statistically insignificant determinants of bank profitability as measured by ROAA for the South African banks under study. These findings were made based on a 95 percent statistical confidence level.

Based on the overall results obtained by this analysis, it becomes apparent that aspects such as asset quality, capital strength, operational efficiency, economic activity, annual inflation, and real interest most significantly affect the profitability of South African banks. It was found that asset quality and operational efficiency exhibited a negative relationship to bank profitability, and that capital strength, economic activity (GDP), annual inflation, and the real interest rate exhibited a positive relationship to bank profitability.

Conclusion and Implications

Based on the results obtained by this analysis, it became apparent that aspects such as asset quality, capital strength, operational efficiency, economic activity, annual inflation and real interest most significantly affect the profitability of South African banks. Specifically, this study found that strategic-level management may increase bank profitability by closely monitoring asset quality and ensuring that expected loan losses are minimized; ensuring that banks are well capitalized at all times, and by aiming to minimize expenses incurred relative to income produced. From a macroeconomic perspective, this study informs strategic-level bank management that bank profitability may increase in times of positive economic growth, rising inflation levels, and an increasing real interest rate.

Therefore, strategic-level bank management may optimize the profitability of South African banks by analyzing and responding to these factors as quickly and efficiently as possible. Bank-specific internal variables such as asset quality, capital strength and operational efficiency are directly influenced by management and should therefore be addressed before macroeconomic external variables when attempting to optimize bank profitability.

Industry-specific external factors were omitted from this research study. A further limitation of the study is the omission of the explanatory variable bank size as measured by total assets. This variable has been indicated to be a significant determinant of bank profitability in numerous international bank profitability studies. Bank size has been omitted from this study due to the lack of available data for the alternative banking institutions included in the sample.

This study limited external determinants to macroeconomic variables and excluded industry- specific factors. Further research could examine the effect of industry-specific determinants on South African bank profitability. A larger sample of South African banks could be utilised to examine the alternative banking institutions or private banking institutions that have been omitted from this research. Furthermore, future research could utilize an alternate measure of bank profitability to examine the determinants for the South African case.

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PRECIOUS METALS AS SAFE HAVEN ASSETS IN THE SOUTH AFRICAN MARKET

David A Hunt, University of Johannesburg, South Africa
Corlise L le Roux, University of Johannesburg, South Africa
Niël Oberholzer, University of Johannesburg, South Africa

The role of precious metals as hedges and safe havens has been extensively studied across various markets. However, no precious metals other than gold have been considered in a South African setting. This study extends previous literature to determine which of the four precious metals provides the most viable hedge and safe haven in relation to the domestic stock and bond markets for South African investors? The results suggest that all four precious metals have significant hedging properties in relation to domestic bond market but not the stock market. It was also determined that while all four metals contain safe haven properties, gold is the only precious metal to act as a significant safe haven against both South African stocks and bonds.

Introduction

The industrial revolution brought about the single greatest development of world economic history that ushered in an age of dramatic growth internationally across numerous sectors and industries (Clark, 2013). This growth is particularly notable in the financial sector, which saw an enormous increase in growth towards the second part of the twentieth century according to Greenwood and Scharfstein (2013). One of the many avenues of research that has stemmed from the increased size of the financial sector globally is the relationship between financial development, economic growth and how this interrelationship relates to a country's respective degree of participation in the world economy. The phenomenon alluded to, involving the interaction of all three elements, is referred to as the 'finance-growth-globalization nexus' (Rousseau & Sylla, 2003) and it has received a considerable amount of interest. The phenomenon can be associated to the long-held theory that in order to encourage welfare and growth in any economy, it is crucial for an effective financial system to be present.

While this sentiment is popular it is not one shared by all and the divisiveness of this theory has been pointed out by Alaabed and Masih (2016). Despite this divisiveness the 'finance-growth-globalization nexus' is generally considered to be positive by academics and regulators, according to Beck, Degryse and Kneer (2014). However, Wyplosz (1998) points out that the increasing frequency of financial crises over the last few decades raises questions as to whether the continued growth and integration of the financial industry globally can and should be regarded as a positive occurrence or not. The reasoning behind Wyplosz's (1998) view is that while there are undoubtedly a number of factors and elements that contribute to financial crises, globalization is considered by many as a contributing factor with the most consequences. This view is reaffirmed by Mendoza and Quadrini (2010) who highlight the important role played by globalization, specifically in the subprime real estate crisis of 2007/8. Globalization as a contributing factor in this instance is significant. In addition to the significant influence of globalization, Luchian and Filip (2015) report that it has been claimed that the continued liberalization of world trade and markets contributes to and compounds the severity, as well as the frequency, of financial crises in general.

In light of the gradual continuation of financial globalization, attention is drawn by Schularick (2011) to the fact that between 1870 and the subprime crisis of 2007/8, there were no fewer than 71 systemic banking crises and that it can be expected that over the course of a similar time frame in the future this figure would increase. The expected increase in the severity and frequency of crises might have far reaching implications for investors and it is important, therefore, to consider relevant factors relating to financial crises. It has been suggested by many that the majority of financial crises are characterized by high levels of contagion and volatility (Caporale, Pittis & Spagnolo, 2006; Schmukler, Zoido & Halac, 2003). One of the most worrying implications is the claim that financial crises characterized by high levels of volatility can lead to increased equity market correlations which would result in markets behaving similarly (Baig & Goldfajn, 1999; Diamandis, 2009; Sandoval & Franca, 2012). An increase in the levels of volatility, contagion and market correlations should be of great concern to investors because of the significant extent to which these consequences are able to impact on some of their primary objectives, such as the pursuit of wealth creation, management and preservation.

In the pursuit of these objectives, investors have in the past, during periods of market turmoil and uncertainty, made use of various strategies. Some of these strategies were aimed at attaining higher returns, others were based on bearing lower levels of risk, and a few relied on both elements. Strategies that rely on both elements, such as a flight to safety and quality make use of diversification to insulate them from adverse market conditions. The 'flight to quality' phenomenon which is characterized by investors moving away from the stock market to either cash or the bond market as pointed out by Gulko (2002), does not offer the same benefit to investors that it once did. The effectiveness of a flight to quality and safety seems to have diminished over the years as a result of increasingly integrated and illiquid bond and stock markets (Goyenko, 2006; Kaminsky & Reinhart, 2002). The co-movement of conventional assets and continued market integration, a principle of diversification, was famously referred to by Nobel laureate, Harry Markowitz as the 'only free lunch' in finance. This 'free lunch' might not be as effective as it once was when employed in conjunction with conventional asset classes. In the face of more frequent and severe crises, as well as the continued integration of markets, investors are constantly searching for potential solutions to address the growing inefficiency of diversification using traditional asset classes.

In recent years investors have considered, amongst other things, alternative investments as a potential solution to the problems posed by these growing concerns. The appeal of alternative investments across investor types in this regard can, according to Baker and Filbeck (2013:25), be attributed to 'their generally low correlation with traditional financial investments'. To investors wary of these developments, Baur and Lucey (2010) point out that the 'increased interdependence among markets and more traditional asset classes create the potential need for an asset that is relatively simplistic and safe: a haven'. One such haven that has generated a great deal of interest over the last decade is that of gold. Over the course of the last few decades, gold has been alluded to by the financial press as a safe haven. However, humankind has been obsessed by it for millennia. It has historically been an unparalleled symbol of wealth and has been traded in markets for over 6000 years according to Green (2007). Man's fascination with this metal is reflected in written accounts over the course of the last six centuries. King (1865:94) emphasizes this point by referring to the writings of an ancient Roman philosopher, Gaius Plinius Secundus who in reflection describes the characteristics of gold, specifically the color that infatuates mankind: 'The golden nugget, glittering amongst the pebbles of the stream, caught the eye of primitive man, who saw in it the image of the sun, the oldest object of worship, and of whom gold has ever since continued the symbol'.

The ability of gold to intrigue people has not diminished over the course of the last six centuries. This precious metal's propensity to serve as both a hedge and safe haven has been intensively studied and, more recently, it has been established (Baur & Lucey, 2010) that gold is able to act as a safe haven in times of market turmoil. This finding has propagated various questions regarding the potential safe haven and hedging properties of other precious metals; specifically, silver, platinum and palladium. While gold is clearly the most acclaimed of the precious metals Lucey and Li (2015) have pointed out that the three remaining precious metals might in certain circumstances act as better safe havens. The ability of any precious metals to serve as either a hedge or safe haven in a specific market should, therefore, be investigated on a case-by-case basis. The indications are that these properties seem not to be homogeneous across markets and vary depending on the market (Beckmann, Berger & Czudaj, 2015). The variation in precious metal properties across markets, coupled with the challenges resulting from the globalization and integration of financial markets necessitates the testing for potential safe haven and hedging properties in developing markets such as South Africa.

The volatility and uncertainty of markets in recent times has made it increasingly difficult to ignore the potential benefits offered by precious metals. There is already a foundation established in the literature, which supports the beneficial hedging and safe haven properties of precious metals. Despite the increase in interest relating to the investment properties of precious metals, research regarding this topic remains relatively sparse with regard to emerging markets and more specifically South Africa. Only a few studies investigate the properties of precious metals from the perspective of a South African investor and most of these consider only one precious metal, gold. The limited scope of these studies indicates the need to address the shortfall in research on potential hedging and safe haven benefits of precious metals from the perspective of the South African investor.

The concerns and shortfalls identified in the problem statement gives rise to an important question: Which of the precious metals, gold, silver, platinum or palladium, provides the most viable hedge and safe haven in relation to the domestic stock and bond markets for South African investors? A time period spanning almost 16 years is considered, which includes various periods of economic turmoil necessary in measuring hedging and safe haven properties. The time period begins 3 January 2000 and ends on 2 September 2016. This question spanning a period of 16 years must be addressed through the research objectives.

Data and Methodology

The quantitative precious metal, equity and bond data are secondary data and were collected from Thompson Reuters Datastream. This study made use of raw data in the form of daily closing prices. In line with the methodology set out by Baur and Lucey (2010) the daily closing prices are obtained for the ALSI, ALBI and gold, silver, platinum and palladium spot prices. ALSI refers to the Johannesburg Stock Exchange All Share Index and

ALBI refers to the Johannesburg Stock Exchange All Bond Index. The data are time series in the form of daily closing prices.

The sample covers a time period spanning almost 16 years starting on the 3rd of January 2000 and ending on the 2nd of September 2016. The data range includes a total of 4081 data points in the sample which may increase when lagged terms are included when testing for the most appropriate fitting model. The closing price data were initially denominated in USD, however, the data was converted to ZAR in order to make the results relevant for South African investors.

The framework for defining precious metals as either a hedge or safe haven was established by Baur and Lucey (2010). The term 'diversifier' is also defined although it is not relevant in the present case. Baur and Lucey (2010) define a hedge as an asset that on average is uncorrelated or negatively correlated with another asset or portfolio. The definition for a safe haven is similar to that for a hedge but differs from the latter in terms of the time frame. A safe haven is an asset that, similarly to a hedge, is uncorrelated or negatively correlated with another asset or portfolio. However, it differs in that these conditions are applicable during times of market stress or turmoil. Furthermore, the authors only clarify that the defining property of a safe haven is its non-positive correlation with an asset or portfolio in extreme market conditions. This property means that the correlation can generally be positive or negative, however, it must be either zero or negative during times of turbulence and market distress. The theoretical framework for defining each of the precious metals as either hedges or safe havens enables the development of a hypothesis that can then be tested.

The hypothesis relevant in the present case is similar to that put forward by Seetharam et al. (2015), which considers only the ability of gold to act as a hedge in relation to the domestic stock and bond market as well as gold's ability to act as a safe haven in relation to international stocks, along with domestic stocks and bonds. In the present case the hypothesis put forward by Seetharam et al. (2015) is expanded to include silver, platinum and palladium but it only considers the safe haven and hedging properties of these four precious metals in relation to the domestic stock and bond markets and not any international markets.

The hypotheses developed from the theoretical framework:

H1. Gold/Silver/Platinum/Palladium is a hedge for stocks and bonds in the South African market.
H2. Gold/Silver/Platinum/Palladium is a safe haven for stocks and bonds in the South African market.

Least-squares regression is a generalized linear modelling technique used to estimate the relationships between dependent and independent variables. In order to test the hypothesis that has been developed and, in doing so, determine whether the four precious metals act as hedges or safe havens in relation to the domestic stock and bond market it is necessary to model the relevant variables using regression analysis. This step is in line with the methodology set out by Baur and Lucey (2010), who use a dynamic regression model to investigate the precious metal gold which is denoted by the term 'pm' in the following equation:

$$r_{pm,t} = a + b_1 r_{stock,t} + b_2 r_{stock,t,(q)} + c_1 r_{bond,t} + c_2 r_{bond,t,(q)} + e_t \qquad [1]$$

The regression model presented by this equation is the principal model used to determine the safe haven and hedging ability of all four precious metals. In this equation rpm, r_{stock} and r_{bond} represent the returns of the relevant precious metal prices, ALSI and ALBI. In order to highlight falling domestic stock and bond markets, the terms $r_{stock,t,(q)}$ and $r_{bond,t,(q)}$ are included. They represent asymmetries of extreme positive and negative shocks. The role played by a precious metal during times of extreme market conditions is particularly relevant to the study and is determined through the inclusion of regressors that contain stock or bond returns that are in the q percent lower quantile, specifically the five percent, two and a half percent and one percent quantiles. If any of the returns are found to be larger than the q percent quantile, they do not represent extreme market conditions and the value of $r_{stock,t,(q)}$ or $r_{bond,t,(q)}$ is zero. The only time that the parameters b_2 and c_2 can be viewed as vectors is when any or all of the three thresholds are estimated simultaneously. The model also assumes that the price of a precious metal can be affected by both contemporaneous as well as lagged stock and bond returns.

In order to investigate and address this assumption it is necessary to consider the link between variables dynamically and determine the optimal lag length. Therefore, an asymmetric GARCH process is estimated for the error term in the regression equation. The GARCH model was popularized by Tim Bollerslev and similarly to its precursor the Autoregressive Conditional Heteroskedastic (ARCH) model it contains a weighted average of past squared residuals. How- ever, Engle (2001) points out that in contrast to ARCH models its weights decline but never fall to zero. Furthermore, this model type addresses the additional drawback of its precursor, the ARCH model, in that the specification appears closer to a moving average than that of an autoregression by including lagged conditional variance terms as autoregressive terms (Asteriou & Hall, 2010).

The GARCH model extension, while similar to that of ARCH models, is more flexible and therefore more capable of matching a wide variety of financial volatility patterns, according to Koop (2006). In line with Engle's (2001) argument, a GARCH process is ideally suited to model the present case because of the fact that the stock, bond and precious metal data's variance of error terms can reasonably be expected to vary across the range and that the GARCH process is able to treat this expected heteroskedasticity as a variance and model it. The determination of the lag length and relevant GARCH model is selected according to certain predetermined estimators. The greatest number of corresponding estimators that are in agreement is generally an indication of the optimal length; however, the methodology set out by Baur and Lucey (2010) suggests that both the Akaike information criterion as well as the Schwarz information criterion should be considered when determining the optimal lag length and GARCH model. The asymmetric GARCH model for the error term is specified in the following equation:

$$h_t = \alpha e_{t-1}^2 + \gamma e_{t-1}^2 D(e_{t-1<0}) + \beta h_{t-1}. \quad [2]$$

The asymmetric GARCH model forms an integral part of the dynamic regression model and when both are estimated the relationship between the dynamic regression model representing each of the four precious metals and the hypotheses developed from the theoretical framework can be explained. When determining whether a precious metal is a hedge or safe haven by way of either accepting or rejecting the hypotheses, both b and c coefficients or parameters of the dynamic regression model in equation 1 are important indicators. Therefore, the first hypothesis will be accepted and either of the four precious metals can be considered a hedge for domestic stocks if the parameter b_1 is found to be zero or negative. If the parameter c_1 is determined to be zero or negative, then the second hypothesis will be accepted and either of the four precious metals can be considered a hedge for domestic bonds. In both of these cases the first hypothesis will be accepted because these conditions, when present, conform to the definition of a hedge since the assets are uncorrelated or negatively correlated with the stock and/or bond market on average.

The second hypothesis relates to safe havens. It will be accepted if the sum of the b_1 and b_2 parameters in equation 1 are non-positive. In other words, if the hypothesis is accepted, the respective precious metal can be considered a safe haven asset for falling stocks during periods of extreme market stress. If the sum of the c_1 and c_2 parameters is non-positive, then the hypothesis will also be accepted, and the respective precious metal can be considered a safe haven asset for falling bonds during periods of extreme market stress. In the case of both stocks and bonds the respective metal will be considered a safe haven owing to the fact that these conditions, when present, conform to the definition of a safe haven since the assets are uncorrelated or negatively correlated with the stock or bond market during times of market stress and turmoil. The overall effect for any of the three quantiles (five percent, two and a half percent and one percent) is determined by the sum of all the coefficient estimates up to the relevant quantile. When a negative correlation is present between precious metals and either stocks or bonds during times of market turmoil, Baur and Lucey (2010) state that investors will be compensated for losses incurred from stock and bond investments by rising precious metal prices.

Empirical Results

The results derived from the regressions of each of the precious metals determined through the dynamic and asymmetric GARCH model equations are presented below. The regression analyses concern the hedging and safe haven properties of gold, silver, platinum and palladium in relation to the South African ALSI and ALBI. The hedging and safe haven findings with regard to the regression analyses for each of the precious metals are discussed and are followed by the results pertaining to the conditional volatility for each of the respective precious metals, determined by means of GARCH models.

The hedging, safe haven and conditional volatility properties of the gold are as follows. The coefficient estimate for the marginal effect of contemporaneous South African stocks on gold is 0.07. The coefficient is positive and highly significant at a five percent confidence level. Although this result is significant it indicates that gold does not act as a hedge in relation to South African equities. The coefficient estimate for the marginal effect of contemporaneous South African bonds on gold is -0.74. The coefficient is negative and highly significant at a five percent confidence level. This indicates that gold does indeed act as a hedge for South African bonds on average. Gold is a safe haven in relation to domestic stocks for shocks exceeding both the two and a half percent and one percent quantile. The results are significant only for the lowest one percent of returns with a safe haven coefficient of -0.20. Gold also does act as a safe haven for South African bond investors. The GARCH results show that the α

coefficient indicates that past shocks have a statistically significant impact on future volatility. The β coefficient implies that the previous value of volatility is effective in explaining current levels of volatility. The sum of the α and β coefficients is one, an indication that shocks will persist in the future. Finally, γ has a negative coefficient which suggests that the magnitude future change of conditional variance for positive shocks is disproportionately higher in comparison to negative shocks of the same sign.

The hedging, safe haven and conditional volatility properties of the silver are as follows. The coefficient estimate for the average effect of stocks on silver is highly significant at a five percent level of confidence but not negative or zero and therefore not a hedge in relation to the domestic stock market. The coefficient estimate for the marginal effect of contemporaneous South African bonds on silver is -0.52 and highly significant at a five percent confidence level, silver does act as a hedge for South African investors in relation to the domestic bond market. Silver is therefore not a safe haven for the South African stock market or bond market when the full sample period is considered. The GARCH results show that the α coefficient in this case indicates that past shocks have a meaningful impact on future volatility. The β coefficient implies that the previous value of volatility is effective in explaining current volatility. The total value of the α and β coefficients is one and this indicates that shocks will persist in the future. Last, γ has a negative coefficient, indicating that future shocks signify a disproportionately higher future conditional variance compared to negative shocks of an identical sign.

The hedging, safe haven and conditional volatility properties of the platinum are as follows. The coefficient in the case of platinum is highly significant at a five percent level of confidence but not negative or zero and therefore not a hedge for the domestic stock market. Platinum serves as a hedge for the domestic bond market, however it does not serve as a significant safe haven for either South African stocks or bonds. The GARCH results show that and the α coefficient indicates that past shocks have a statistically significant impact on future volatility. The β coefficient implies that the previous value of volatility is effective in explaining current levels of volatility. The sum of the α and β coefficients is one, indicating that shocks will persist in the future. Finally, γ has a negative coefficient, which implies that the magnitude future change of conditional variance for positive shocks is disproportionately higher in comparison to that of negative shocks with a similar sign.

The hedging, safe haven and conditional volatility properties of the palladium are as follows. In the case of palladium, the coefficient estimate for the average effect of stocks on palladium is highly significant at a five percent level of confidence but not negative or zero and, therefore, not a hedge in relation to the domestic stock market. The coefficient estimate for the marginal effect of contemporaneous South African bonds on palladium is -0.53 and is highly significant at a five percent confidence level. This result indicates that palladium serves as a hedge for South African investors in relation to the domestic bond market. Palladium does not contain safe haven properties in relation to the domestic stock market. In contrast to the stock market palladium appears to contain safe haven properties in relation to the domestic bond market. Palladium is a better safe haven for investors against bond market turmoil than it is in relation to stock market turmoil. The GARCH results show that the α coefficient indicates that past shocks have a meaningful impact on future volatility. The β coefficient implies that the previous value of volatility is effective in explaining current levels of volatility. The sum of the α and β coefficients is one and this implies that shocks may persist in the future. Last, γ has a positive coefficient, suggesting that future shocks will have a disproportionately higher future conditional variance compared to negative shocks of an identical sign. However, the γ coefficient is not statistically significant and, therefore, the future shocks relating to palladium will have no significant impact.

Conclusion and Implications

The results and findings of the study that pertain to the hedging and safe haven properties of gold, silver, platinum and palladium are relevant to South African investors looking to safe guard against turmoil in both the domestic stock and bond markets. The results indicate that precious metals are able to provide both hedging and safe haven properties to investors to a certain extent over the entire sample period. Of all the precious metals gold has received the most widespread attention in the financial news as a premier source and store of value (O’Connor, Lucey, Batten, & Baur, 2015). The findings of this study contend that there is merit to the widespread acclaim and attention that gold has received over the years.

The results indicate that although gold does not serve as a hedge for investors in relation to the domestic stock market, it does serve as a hedge against the domestic bond market with a significant negative coefficient estimate. With regard to gold as a safe haven it was determined that gold does contain safe haven properties in relation to both domestic stocks and bonds across all thresholds with the exception of the five percent quantile for the domestic stock market. The coefficient estimates that were found to be statically significant at a five percent confidence level are stock returns at the lowest one percent quantile and bonds at a five percent threshold.

The conditional volatility findings that relate to gold indicate positive coefficients for all of the estimates with the exception of γ. All of the coefficients are also statistically significant at a five percent level of confidence. Last, the negative coefficient of γ implies that the magnitude future change of conditional variance for positive shocks is disproportionately higher in comparison to those of negative shocks of the same sign.

The findings of silver relate more closely to those of gold than any of the other precious metals that are considered. In line with the findings related to gold it was found that silver is not a hedge against the South African stock market but can be considered a hedge for the domestic bond market, owing to the fact that the results indicate a significant negative coefficient for silver. The study, therefore, determined that silver did not contain any safe haven properties in relation to the domestic stock market over the sample period. In contrast to the stock market it is established that silver contains safe haven properties in relation to the bond market, as indicated by the negative coefficient estimates for the two and a half percent and one percent quantile. However, they are not significant at a five percent level of confidence. The coefficient estimates that pertain to the conditional volatility of silver are all highly significant and positive, with the exception of γ. The γ coefficient is negative and contends that future shocks in the market are indicative of a disproportionately higher future conditional variance compared to negative shocks of the same sign.

The study revealed that platinum and palladium have similar hedging and safe haven results. While both precious metals indicate significant hedging properties in relation to the domestic bond market neither of these metals is able to serve as hedges in relation to the South African stock market. Furthermore, the findings suggest that both platinum and palladium do not act as significant safe havens for South African investors in relation to the domestic stock market. Despite this, the results indicate that both metals do contain safe haven properties in relation to the South African bond market; however, they are not significant at a five percent confidence level. The study also determined that platinum has negative coefficient estimates across all three thresholds while results pertaining to palladium indicate that both the two and a half percent and one percent quantiles contain safe haven properties.

The conditional volatility of platinum relates closely to that of gold and silver. All of the coefficients are highly significant and positive, with the exception of γ that points to the fact that the magnitude of future change of conditional variance for positive shocks is disproportionately higher in comparison to negative shocks of the same sign. The results relating to the conditional volatility of palladium differ from those of the previous precious metals. In contrast to other metals the coefficient estimates for palladium are all positive. The coefficients are also all highly significant at a five percent confidence level, with the exception of γ which is not statistically significant and indicates that future shocks will not have a significant impact in relation to palladium.

This study set out to address the research question which enquired as to the most viable hedging and safe haven precious metal for South African investors in relation to the domestic ALSI and ALBI. Through answering the research question, the objective of the study would also be achieved which was to investigate the safe haven and hedging relationships between the four relevant precious metals and the domestic stock and bond markets. In doing so the study extends previous literature by considering additional precious metals to gold in the South African market. By replicating the methodology first set out by Baur and Lucey (2010) the study was able to achieve the objective by determining the relationships between all four precious metals; gold, silver, platinum, palladium and the South African stock and bond market respectively.

It was also determined that all four precious metals have significant hedging properties in relation to the South African bond market but not the stock market and that all four precious metals contain safe haven properties in relation to South African markets. Furthermore, the research question was answered when the findings and results revealed the most viable hedging and safe haven precious metal for South African investors to be gold. The findings regarding gold are in line with those determined by Seetharam et al. (2015) who also established that the metal is a hedge and safe haven against the South African stock and bond market. The implications of holding gold during distressed market periods is that a South African investor is compensated for negative stock and bond returns through positive gold returns.

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TELEWORING – NEW BUSINESS PARADIGM

Michal Beno, VSM/CITY University of Seattle, Slovakia
Darina Saxunova, Comenius University in Bratislava, Slovakia

The world in which we are functioning is changing. Modern concepts and methods of competition are emerging all over the world. Many enterprises make widespread utilization of information and communications technology (ICT) to operate business. ICT is changing not only the transactional aspects of business, but also the organizational aspects, allowing virtual work or the creation of virtual companies. ICT is a big challenge for each of these areas, which results in a big impact of these changes on teleworking. The adopting process of all developments in business organizations have direct outcomes for the potential number of teleworkers. An increasing number of employees are working outside of traditional on-site work environments in locations tied electronically, i.e. virtually to a central office. The research object is teleworking practice that has become an increasingly important employment tool for fulfilling key business needs. The objective of the study is to investigate and critically analyze to what extent a traditional paradigm of business meets the modern conditions of a contemporary organization. Collected internet survey results were processed, the positive and negative impacts of telecommuting on both organizations and employees are identified, in addition, the study also focuses on teleworking in emerging markets and to what extent it may contribute to or challenge their growth.

Introduction

Information and communications technologies are changing many of the paradigms of business. Technology is one of the central and most significant elements related to effective operational management in an organization. Nowadays, especially in big corporations when so much information must be processed, it is not possible to function and operate business without technology. Technology can be defined as a body of knowledge used to create tools, develop skills, and extract or collect materials. It is also the application of science (the combination of scientific method and material) to meet an objective or to solve a problem (Gregus, Kryvinska, 2015; Molinero, 2012). Information and communication technology (ICT) allows and creates conditions for new trends in job such as microwork, ICT-enabled contracting, online gaming work, and in the growing “app” (applications) economy having their risks and benefits. Establishing the base of appropriate conditions new jobs and new income opportunities can be created. Work that is facilitated by the ICT can be performed anywhere utilizing regular computers and Internet connections. Telework or telecommuting is a form of the work where the utilization of technology is crucial. When companies choose teleworkers, jobs made for them offer high flexibility in skills requirements, telework work jobs are characteristic with low entry barriers, and are resilient toward and countercyclical to economic downturns. (Rossoto et al., 2012). Finally, as forms of telework or virtual work, these trends may have a positive environmental effect by reducing commuting and delivery costs.

Malone (2007) discussed the evolutionary path of societies from independent farmers to modern day decentralized organizations. Equipping the workforce with the skills required for the jobs of today and those of tomorrow was a strategic concern of national growth and development of all G20 countries (OECD, 2010). We believe that other countries are also accelerating the diffusion of technology and innovation in the globalized world. Over the years, a variety of work structures have emerged and been considered by employers in an effort to attract and retain qualified workers, while minimising rising employee costs (Crumbley, 2001). We believe that, due to shifting workplace demographics, losing hierarchies, acting as democracies and business freedom in markets (Malone, 2007), organisations and companies are examining various modern strategies. In addition, as the manufacturing sector was decreasing jobs, the services sector was adding them (Bivens, 2004; Kryvinska, 2012). As far as we know, manufacturing business traditionally operates in a central office where employees are expected to work. But most service businesses use the operations at a specified location (Kaczor & Kryvinska, 2013). Indeed, modern ICT allows service businesses to work anytime and anywhere, using email, fax machines, mobile phones, tablets, laptops, etc. This permits employees to communicate with customers and co-workers from any location.

Despite the empirical evidence showing productivity gains, many employers remain skeptical about the level of performance they can count on from employees working outside the direct view of supervisors. Some of the reluctance may reflect a natural comfort with traditional practices. Information technology can allay these concerns, however, by providing accurate data on employee production, whether the employee is housed in the office or at home. In the case of telecommuting employees serving customers by telephone, calls can be monitored for training and quality, just as if they were in an office. Indeed, information technology has been cited as the "key factor" in reversing a historic trend toward lower productivity from the mid-1970s to the mid-1990s.[40] Telecommuting has played a part in this and is likely to play an even greater part in the future.

Work is and always has been one of the most defining aspects of our lives. In general, innovative organizations seek unique methods of executing their functions, with the purpose of increasing profits. The World Bank study also emphasizes three global drivers, in charge of the ICT-related jobs growth throughout the world, many countries have the target to support the increase of the ICT-related jobs: (1) Greater linkage enabled via mobile telephones – more than 120 countries have exceeded 80 percent market access of telephones, for example, the growth of the mobile phone applications industry has created new opportunities for small- and medium-sized enterprises; (2) Work digitalization – more and more aspects of work processes are digitalized, telework and outsourcing have become global business practices; and, (3) Variety of globalized skills in global, more innovative, labor markets– main outsourcing hubs have been established e.g. in India and the Philippines because of the English language skills of their citizens.

Modern, innovative organizations seek new ways of ICT modernization, product/process updating and structural reorganization. In addition, new methods are sought in the fundamental pillars of the organization: administration management, co-working forms, distribution of leadership, flexibility need for workers and organizations, alternative work arrangements such as flexible scheduling, working from home, and part-time work (Mas & Pallais, 2016). Workplace flexibility has been touted as both the benefits and costs of the fragmentation (or "Urbanization") of the workplace (Manjoo, 2017). One such activity involves teleworking and is the topic addressed in this study.

Telework and Current Products & Services

Telework is the practice of using computer-based communications technology so as to enable work to be performed outside the conventional workplace from remote locations, e.g. the home, a ship, a hotel room, or anywhere an Internet connection can be made (Malone, 2007). This is generally understood as the utilisation of ICT to allow employees to perform their work tasks remotely, away from the central workplace, in accordance with the working agreements. Telework has been emerging and is considered as a standard business strategy for a great deal of organizations with the potential of decreasing costs, improving productivity, and expanding the supply of new employees, who, for examples, have the problem with transport and are not capable of purchasing a car. There is also an ecological aspect of telework: it reduces the traffic congestion; less cars will lead to less pollution.

Ye (2012) emphasises that, since the 1990s, telecommuting as a business practice has grown significantly due to the increasing pressure on companies to cut costs and to increase employee productivity. Initially, telecommuting was used mostly by sales representatives and consultants, but today it is used regularly by many employees in many different organisations. Teleworking is obviously not a new concept, but it is currently being more widely used. With portable computers, high-speed telecommunications links, and current pocket communications devices, many employees are able to work almost anywhere/anytime, at least some of the time, and no longer have to meet at the main headquarters of the organisation to conduct business. Instead, employees may work virtually. ICT is causing changes in each of the areas of business, and these changes are having impacts on the adoption of telecommuting. Modern products and services have been introduced to meet the needs and to exploit new opportunities in the evolving information economy.

Modern methods of communication, e.g. email and instant messaging, allow for more efficient means of information exchange and at much lower costs than older methods, e.g. face-to-face meetings, memos, etc. Present-day technologies provide organisations the capability of creating knowledge/experience databases where workers can search for information to assist in projects and connect with people who might be able to offer advice and guidance. These technologies include blogs, groupware, recommender systems, and various other knowledge management systems. The common factor of these examples is the primary focus on the handling (creation, processing, and dissemination) of information, rather than of physical objects. Consequently, it is inevitable that the handling can be done just as easily at home or in a telecentre instead of in a traditional office. For example, software distribution and support services can all be accessed electronically, without any need for physical movement of goods or people.

It is common practice in business today to outsource tasks to other companies or people. Malone (2007) proposes the replacement of a single company or enterprise with a combination of smaller companies and independent contractors. Malone and a colleague coined the term "e-lancer (a freelance worker who carries out of work via electronics)", or an electronically connected freelancer, to describe the person engaged in this system of working. ICTs connect people to jobs creating telecommuting jobs. Employees and employers are connected globally in the online employment marketplaces, around 12 million people worldwide were successful to find a job in this way. Babajob in India, Duma and M-Kazi in Kenya, and Souktel in the Middle East and North Africa are examples of job search services using internet-based and mobile tools. Labor markets are becoming more transparent and inclusive; for instance, Souktel targets low-income and marginalized communities (WB, 2013).

Organizational Forms

Modern products, services and methods of transactions are developing the potential for many businesses to allow their employees to telework. In addition, there are also major changes occurring in organisations that are allowing businesses to exploit these potentials. These changes are considered in terms of different forms of organisation. Organisations are universal phenomena in human society and were defined by March and Simon (1958) as systems of coordinated action among individuals who differ in the dimensions of interests, preferences and knowledge. Organisations exist when people interact with one another to perform essential tasks (Daft, 2007); they are social units of people with a recognisable boundary to meet certain goals (Robbins, 1990). We understand the organisation as a social entity that provides the necessary structures to achieve specific aims. We describe the term “business” as a commercial enterprise or establishment that trades in goods or services. Therefore, we define the “business organisation” as an entity that is both commercial and social, which provides the necessary structures to achieve the central objectives of trades in goods and services. Loose hierarchies can be described as a form of decentralisation where decision making is delegated to lower levels in the organisation. According to Malone’s (2007) utilisation of the Linux and Wikipedia examples, decentralisation can be specified as having the following characteristics in common: (1) *Heavy communications among members*: there is constant communication between group participants to keep projects on track; (2) *Little organization control*: senior managers leave most decision making to the lower levels, but retain some final decision-making power, e.g. final approval of changes in software releases; and, (3) Discretional participation: members of the organization can choose whether or not to participate in the collective effort. Members do not have to participate in projects that do not appeal to them, but they are entirely responsible for the projects in which they do take part.

Democratic organisations abide by the decisions made by a vote of the groups. In our point of view, this concept does not seem to be innovative from the overall perspective. However, the difference between current democracies and those of past generations is that the voting is not held strictly at the top levels of the organisation. Malone (2007) proposes a new kind of democratic hierarchy for future organisations as follows: (1) each person in group in an organisation chooses how he/she will reach decisions, with a majority vote to decide any issue that cannot be resolved by consensus; and, (2) each group also elects the respective managers or representatives to participate in higher-level groups.

Traditional Organizations

During the Industrial Revolution, physical centralisation was an essential feature of the evolving manufacturing-based economy. The development of systems of mass production required many workers to take care of large machines that necessarily were located near transportation centres. This industrial centralisation model was applied to the information sector. In this type of organisation, all employees physically commute to a common location. Jahan (2016) emphasises that the traditional organisational structure in a business is hierarchical, meaning that power flows vertically and upwards, and employees are departmentalised. All employees follow a chain of command. In our opinion, the traditional style of management is more comparable to the military style of management, which is very hierarchical, organised and disciplined. The modern style of management largely depends on soft skills. We present some key points of difference between the traditional (stable, inflexible, job-oriented, permanent jobs, individual, tall hierarchy, workdays defined) and modern organisation (dynamic, flexible, skill-focused, temporary jobs, team-oriented, flat hierarchy, flexibility of workdays and places). It is common knowledge that the traditional organisation is a pyramid type with a president at the top, a few vice-presidents, and layers of management, with the majority of employees at the bottom. Jobs are specialised, and information and authority flow from higher to lower levels.

Modern Organizations

Information technology has profoundly changed the way we do business. In recent years, the view of the structures has shifted progressively from the wish for simplification to complexity. The pressure of competition has not ceased increasing, and companies attempt to respond with greater precision to customer requirements. It questions the vertical division of the job and the coordination through a hierarchy. However, modern organisational forms have arisen thereby e.g. Inverted Organisation, Networked Organisation and Virtual Organisation. Adkins (2017) explains the concept of the Inverted Pyramid in an organisation as: “the inverted pyramid is a metaphor for a reversal of traditional management practices. Employees who are closest to clients or production processes are placed at the top and managers at the bottom". This means that the employee is empowered with greater decision- making authority, freedom of action, contrary to the manager who becomes a facilitator.

As computer and telecommunications technologies have advanced, it has become practical for the information hardware to be located at individual employees' homes, allowing for the creation of networks connecting employees in central business districts and residential areas. Under this sort of organization, businesses could be spread out in the general community with employees teleworking to the remaining central offices. Currently, in most cases of this type of teleworking, teleworkers live within typical commuting distance of the main office, to which they commute two or more days per week. For the rest of the time, employees telecommute from home or from clients' facilities. In this type of organization, authority and responsibility are extended as far as possible. Intranets also assist companies to obtain the maximum efficiency from various experts and departments, no matter where they work or where they are located (Watson, 2007). This technology results in more success in terms of growth, as productivity increases. It is basically an internal database which every employee can access, with different permissions for various staff members (Rauv, 2013).

In the literature, a networked organization is described as: "an organization, or organizational field, all of whose members are connected to a single electronic network through which they communicate (sometimes on non-work affairs) and by means of which they access or provide information" (Sproull & Kiesler, 1991); "an independent company in distributed network" (Smirnov et al., 2004); "a management structure in which organizational units are tightly clustered, as in a honeycomb, where there is a melded network of relationships and functions" (Sviokla, 2004). We understand a networked organization as a flexible organization with a network-based structure, in which workers without structural, time or space hindrances communicate through ICT while executing their duties.

A virtual organization is a temporary network of independent enterprises, institutions or organization individuals that, using information and communications technology (IC/TC), spontaneously come together to organize an apparent market opportunity. They provide their core competencies and aim to create a value-adding partnership. A virtual organization acts in all appearances as a single organizational unit. "Virtual" is almost something. Scholastic language has deviated from common language as organizations evolve, causing scholars to follow this evolution and try to define virtually not in the framework of the philology but in the framework of management. Consequently, a wide range of definitions has arisen, scarcely seeking scholars' consensus. A virtual organization is defined in the literature as: "a network of firms held together by the product of the day" (Borgatti, 1996); "a task, project or permanent organization which is decentralized and independent of any spatial connection" (Fisher & Fisher,1996; Hoefling, 2001); "a consolidation of several business units in which human and work processes interact while seeking common results and mutual benefit" (Butkus, 2003); "a network of people or organizations which are independent, realizing a common project or common economic activity, communicate and hold information processes through information technologies and do not depend on time and space" (Vernous & Valcin, 2006); "a virtual organization is any organization with non-co-located organization entities and resources, necessitating the use of virtual space of interaction between the people in these entities to achieve organization objectives" (Shekhar & Ganesh, 2007). In our opinion, a Virtual Organization could be defined as a self-sufficient geographically distributed temporary or permanent consolidation of organizations, groups or individuals, which, without time or space hindrances, communicates through ICT with a common goal in mind.

The Impact of Teleworking on Organizations and Individuals

Teleworking is the act of working at a remote location, usually at home, rather than travelling to and from an office. Teleworkers typically work one to four days a week and commute to the office for the balance of the time. Teleworking can transform organizations in numerous ways. Organizations that implement teleworking arrangements must rely on the trust towards employees, empowering individuals to make decisions, and measuring by outcomes rather than face-time. The potential organizational positive and negative impacts that have been identified by many authors, to mention few Mamaghani (2012), Nilles (1995), Shepp (1995), Cascio (2007), Thomas (2007), Loubier (2017), Pyöriä (2011). Even in 1958 telework issue was studied by Marcus (1958).

Positive Impacts on Organizations

From an organisational standpoint, teleworking is justified when the costs are balanced by the benefits. If, as is most often the case, the benefits exceed the costs, teleworking should be actively promoted. This kind of work offers many advantages to organisations. In general, we observe the following advantages: *improved employee productivity* (this facilitates a greater focus on work and concentration)*, lower employee absenteeism, increased employee retention, larger talent pool from which to recruit/select* (geographical distances become less significant or irrelevant; organisations are able to employ disabled, elderly or other individuals), *reduction in overhead facility costs* (increasing numbers of teleworkers; organisation can often reduce their investments and expenditures in office buildings, parking lots, and other physical capital), *environmental impacts* (e.g. reducing commuting to the office; reducing CO2).

Table 1. Pros and Cons of the Telework

POSITIVE INFLUENCES	NEGATIVE INFLUENCES
Lower absenteeism	Set-up and maintenance costs
Improvement of work quality and productivity	Relationships with co-workers
Increased organisational flexibility	Cultural issues
Better usage of ICT	Loss of synergy in the organisation
Retention of labour force, keeping older generations in the workforce	Increased data security concerns
Cost effective approach	Burn-out issues
Environmental impacts	Difficulty of managing the teleworkers
Autonomy, work-life balance	Diminished productivity
Online contracting, jobs enabling extra-income	Short-term, contractual jobs requires continuously to build supplemental labour force database
Different structure of jobs, variety of a smaller discrete tasks for a worker to choose	Lower social safety, if the jobs are contractual
Greater employees' involvement in Microwork platforms	Threat of a high quality work performance, new forms of control required

Source: Elaborated by the authors

Negative Impacts on Organizations

Despite its advantages, telecommuting also presents negative impacts for organisations. The most obvious for many is the perceived difficulty in monitoring employee performance and measuring employee productivity. How does a manager know what his or her employee is doing, if the employee cannot be seen? For organisations and managers who supervise the use of a line-of-sight approach, telecommuting can be an unsettling working arrangement that represents unwelcome and unproductive changes to the organisation. Therefore, organisations that implement telecommuting arrangements must be committed to trusting employees, empowering individuals to make decisions, and measuring by outcomes rather than face-time. Another disadvantage presented by telecommuting concerns developing synergy and teamwork among teleworkers and their co-workers. It is often difficult to establish a mutual trusting and supportive relationship among individuals who infrequently interact face-to-face, for purposes such as the progress of an organisation. We can summarise the main negative impacts as follows: difficulty in employee performance monitoring, difficulty in measuring employee productivity, change forces an organisation outside the comfort zone, possible negative effects on workplace social network, difficulty in fostering team synergy.

The Impact of Teleworking on Individuals

The data used in the Internet online survey were collected from October 18 to November 19, 2016 with a probability sample of 584 workers. The participants, who were randomly chosen, with jobs requiring the use of ICT to accomplish their work-tasks. The response rate was 52.74 %. 308 questionnaires were completed, 52 of them (8.90 %) were incomplete. In the sample, 48.1 % respondents were male and 51.9 % female, from various countries worldwide, 65.6 % of the participants were in non-management positions, 38.0 % were high school graduates or had some college education, and 56.2 % had graduated with a Bachelor's degree or higher.

Our 201 respondents consider flexibility as the benefit of a Home Office. 100 of them believe telework makes work more flexible, one can focus better on work and is not disturbed by a bustling office atmosphere. The discussion about a Home Office also shows that work organization has changed during recent decades. The idea is spreading among younger people and ICT-users friendly. The benefits of working from home are evident to homeworkers: 64.0 % think it saves time and 49.4% that a better work-life balance can be achieved. 26.6 % mention a better quality of workplace. People working from home actually work more overtime than their colleagues who have never worked from home. The difference between work and leisure is, however, also evidently blurred for others. In their leisure time, 85 of all managerial staff deal with work calls and 70 respond to urgent emails after work. The culture of attendance that is still rooted in many companies functions in working from home. 34.4% of the participants said that attendance is important.

Work Life Balance are three words that are currently popular. In our view working from home is often celebrated as the solution to this problem. Our findings demonstrate it because 32.1% of respondents save time on commuting, it allows a better balance between work and all other activities, as stated by 152 respondents. From our own experience of a Home Office, we are in the office a maximum of 2 days per week, when we are happy to meet other colleagues and cooperate with them. In spite of the fact that commuting is 45 minutes each way, we are no longer stressed because we do not have to do it every day. 23.4% are more satisfied with their work, working from home makes 61 of them feel more contented and 54 of them feel greater career satisfaction, 17.2% are happier with their lives in general.

Working alone or from home is as expected not for everyone. Those who have to battle to meet deadlines or to avoid postponements, or who often find themselves clicking from one reference to another will not make any progress. Very likely such persons will fare much worse in a Home Office than in a real office. Self-discipline is important, with a clear determination of time constraints, as well as the care of your own biorhythm, needs and habits. Reality shows that only a few people would take working from home as a voucher for leisure and idleness. Remote working, which means being able to work from home, increases your productivity and creativity. The correct resources are essential for remote work. Email and mobile phone are alone not sufficient for homeworking.

Teleworking may also produce some undesirable effects on individuals. In fact, feelings of isolation and the loss of morale are the most commonly cited drawbacks of telecommuting (Fitzer, 1997; Harpaz 2002). Another potential negative impact related to telecommuting is the emergence of conflicts between family and work-related roles (Allen et al., 2013; Gajedran & Harrison, 2007). In addition, telecommuters often feel a lack of organizational support, which creates other problems. Some studies indicate that telecommuting on a part-time basis, which is 1 to 3 days per week, reduce or eliminate several disadvantages (Cascio, 2000; Harpaz 2002).

239 of all respondents see the contact with colleagues as a great plus for working in the office. We think that for some people, working in the office is beneficial for the quality of work and as a counterbalance to Home Office isolation. So they prefer commuting (also part-time) to the office, so as not to miss out on the productive atmosphere and companionship of colleagues. 34.4% of respondents state that presence is very important, many things can be discussed and explained face-to-face better than at home. 131 participants prefer the separation between professional and private life.

The greatest benefits with regard to the traditional office are the skills which they can acquire in the office, e.g. behavioral and interpersonal skills (129 answers), creativity (67 answers), more experience (87 answers), and building relationships (22 answers). Respondents think that most employers reject working from home even when it is required. 15.6 % of respondents think that a Home Office can lead to isolation, one works non-stop, is always on the alert.

Telework Enabled by ICT and Challenges to both Developed and Developing World

To maximize the positive influence of ICTs on employment, that policymakers responsible for legislative norms should aim at creating following five systems mutually mixed according to the country needs (WB, 2013): (1) *Regulatory systems*—An environment encouraging and creating job opportunities which increases labor market flexibility while protecting the rights of workers; (2) Infrastructure systems—Ubiquitous connectivity to ICT; access to electricity and transport; infrastructure to support innovation and adoption of technology by SMEs; (3) Social systems—Networks of trust and recognition for workers and employers, social safety nets, and measures to minimize possible negative outcomes of ICT-enabled employment' (4) Human capital systems—A labor pool with appropriate ICT skills, and the awareness and soft skills that give competitive advantage in the labor market; and, (5) Financial systems—Efficient and accountable systems to ensure timely payments; and access to finance to support innovation and entrepreneurship".

The following picture is an evidence that ICT may play a significant role in enabling financing in agricultural sector.

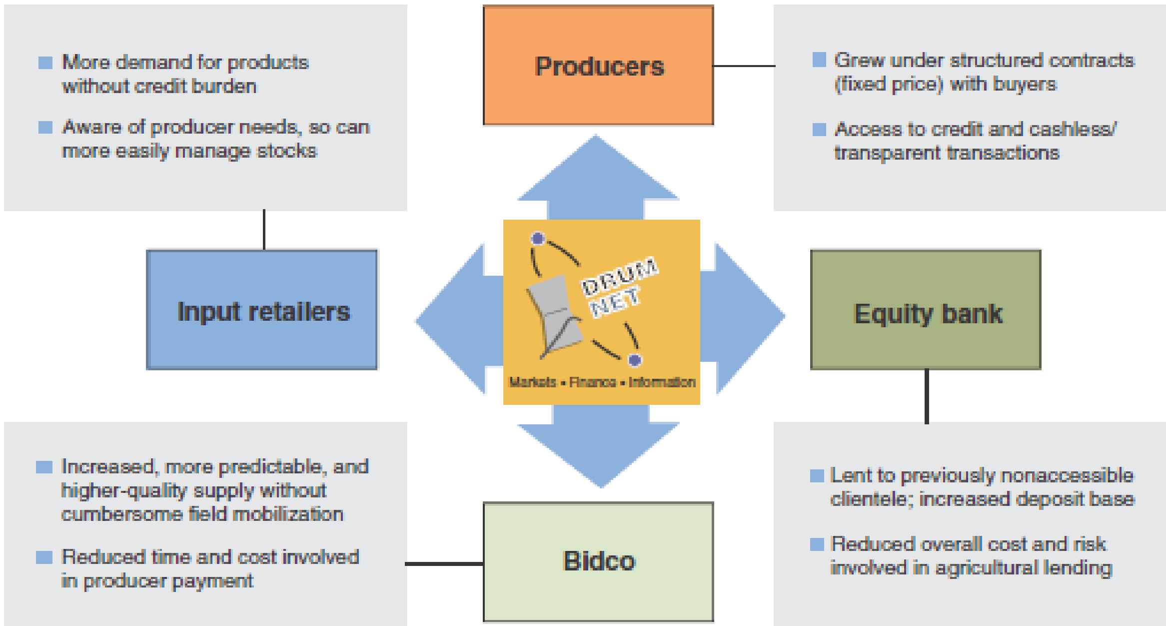

Figure 1. DrumNet a Project of Pride Africa
Source: World Band (2017)

DrumNet project of Pride Africa has encouraged and made a promotion of larger utilization of microfinance across the African continent for 30 years. The design of DrumNet was to secure market, information, and financial services to smallholders, which led to evolving a sophisticated technology platform for these services deliveries. The project DrumNet in Kenya, Africa demonstrates possibility for a third party to coordinate and connect farmers, buyers, financial intermediaries, and operations managers to guarantee financing to small farmers with ICT playing a vital role in this process. ICT devices and systems such as mobile phones, smartcards, and management information systems facilitate communication among the counterparts and help to manage the administrative challenges of tracking large numbers of smallholders, delivering loans cost-effectively, ensuring that funds are properly used, and collecting payments (WB, 2017).

Conclusion

Advances in information technology, proliferation of a global workforce, and the increased desire to balance work and family are only three of the many factors that serve to amplify the popularity of teleworking arrangements. Organizations which recognize that work is something that does not have to be carried out in a specific location, and which adequately prepare for the implementation of teleworking arrangements, should benefit from greater employee commitment, productivity and job satisfaction.

The organization of the structures requires a determined business and management strategy. The organizational structure of a business is the result of the influence exercised by a series of factors. For this reason, it is not possible to discuss one type of organizational structure in contemporary organizations of associated labour, despite a specific type prevailing. Because of the concurrence of influences exerted upon the organization of structures, it is necessary for organizations simultaneously to use various organizational structures about business strategy, business objectives, types of decisions, and operating conditions. The organizational structures also must be adapted to the changed strategy, objectives, decisions and conditions of operating. In changing the organization, however, we must realize that structural changes are but one aspect of the adjustment of the organization. Besides this aspect, there are also important technological changes, changes in people's behavior and changes in work processes. The highest efficiency of an organization can be achieved if all the necessary changes are carried out simultaneously.

Since the rise of computer-mediated communication in organisations, the necessity to find a better use for the new modern form of communication has arisen, which has brought along new types of organisational structures and relationships with partners. Most often, the concepts of a modern organisation are a Virtual Organisation and a Networked Organisation.

People who were employed using online contracting work frequently for smaller employers, such as oDesk and Elance are popular services offering about 2.5 million jobs in 2012, covering variety of jobs, e.g. writing tasks, customer service, software development. Large business processes are divided into smaller discrete tasks –through microwork platforms, for instance positions where entering and verifying data are required, copy-writing, or graphic design. These jobs are allocated to workers worldwide reaching also the developing countries, the examples are platforms including CloudFactory, MobileWorks, and Samasource. The estimate of the analysts is that the market size was about US$1 billion in 2013 according to the Wolrd Bank study and it could grow to about US$5 billion by 2018. (WB, 2013).

This study has reviewed the business and academic literature and highlighted several important impacts of teleworking on both organizations and employees. Advantages for organizations include lower levels of absenteeism, increased levels of employee loyalty, a better retention of skilled employees, increased productivity, cost savings, increased flexibility, and the potential to quickly recover from interruptions due to unexpected events such as natural disasters. However, telecommuting is also associated with some undesirable effects, such as employee absence from the office, a loss of synergy within the organization, and reduced security and control of organizational data. Moreover, several authors have noted that managers often have trouble in supervising and objectively evaluating the performance of telecommuters.

For employees, according to the results of the Internet online survey, benefits of telecommuting include flexibility, time and cost savings, reductions in stress levels, more flexible working hours and fewer interruptions, which are likely to lead to greater job satisfaction and increased productivity. On the other hand, telecommuting can also lead to feelings of isolation and a loss of morale.

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ISBN 978-0-9937342-3-6