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Thematic Edition

Management Studies

PERTANIKA JOURNALS

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Journal of Social Sciences & Humanities

About the Journal

Overview

Pertanika Journal of Social Sciences & Humanities (JSSH) is the official journal of Universiti Putra Malaysia published by UPM Press. It is an open-access online scientific journal which is free of charge. It publishes the scientific outputs. It neither accepts nor commissions third party content.

Recognized internationally as the leading peer-reviewed interdisciplinary journal devoted to the publication of original papers, it serves as a forum for practical approaches to improving quality in issues pertaining to social and behavioural sciences as well as the humanities.

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The *Introduction* explains the scope and objective of the study in the light of current knowledge on the subject; the *Materials and Methods* describes how the study was conducted; the *Results* section reports what was found in the study; and the *Discussion* section explains meaning and significance of the results and provides suggestions for future directions of research. The manuscript must be prepared according to the Journal's **INSTRUCTIONS TO AUTHORS**.

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4. The authors decide whether and how to address the reviewers' comments and criticisms and the editor's concerns. The authors return a revised version of the paper to the chief executive editor along with specific information describing how they have answered' the concerns of the reviewers and the editor, usually in a tabular form. The author(s) may also submit a rebuttal if there is a need especially when the author disagrees with certain comments provided by reviewer(s).

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Foreword

Welcome to the Thematic Edition of the Journal of Social Sciences and Humanities (JSSH) focussing on "Management Studies". These are regularly submitted manuscripts; selected and reviewed by the regular system and accepted for publication. JSSH is an open-access journal for studies in Social Sciences and Humanities published by Universiti Putra Malaysia Press. It is independently owned and managed by the university.

JSSH VOL. 27(T1) 2019 contains 16 articles; 14 are Regular Articles and the rest are Case Studies. The authors of these articles come from different countries namely Malaysia, Korea, Indonesia, Philippines and Thailand.

The first highlight is an article entitled "Does Self-Efficacy Always Trigger Entrepreneurial Intention?: An Exploratory Approach" by Sun-Hae Hyun, Moon-Kyo Seo and Se Kyung Choi from Republic of Korea. This paper describes the factors that influence entrepreneurial intentions (EI) of South Korean young generation. In particular, efforts have been made to distinguish the different impacts of general self-efficacy (SE) and entrepreneurial self-efficacy (ESE). For this purpose, a cross-sectional study was designed and 349 college students in South Korea were surveyed. Findings showed that high self-efficacy, unlike previous studies, could lower the entrepreneurial intentions. However, when it is mediated by creativity, it increases the youth's intention of starting a business, which suggests that it is necessary to investigate the diverse functions of self-efficacy when studying its impacts on entrepreneurial intention. Details of the article is available on page 45.

The second highlight of this thematic edition is an article entitled "Emergence of Social Enterprises as Partners for Social Development in the Philippines" by Anna Bettina Herrera Andaya, Emilia Solomon Visco and Dhino Bonita Geges from Philippines. This study characterized eight SEs in Region 4A in the Philippines; analyzed their emergence; and evaluated their effects to stakeholders. A qualitative research methodology was used; specifically conducting Key Information Interviews (KIIs) with the proprietors of the purposively selected SEs. Results showed that the SEs had various focus areas; used different strategies and SE models; and contributed positive changes to partner communities and groups, making them partners for social development. Details of the article is available on page 141.

We anticipate that you will find the evidences presented in this issue to be intriguing, thought-provoking and useful in reaching new milestones in your own research. Please recommend the journal to your colleagues and students to make this endeavour meaningful.

All the papers published in this edition underwent Pertanika's stringent peer-review process involving a minimum of two reviewers comprising internal as well as external referees. This was to ensure that the quality of the papers justified the high ranking of the journal, which is renowned as a heavily-cited journal not only by authors and researchers in Malaysia but by those in other countries around the world as well.

We thank the authors for agreeing to publish their papers in this Thematic Edition, and the editors and reviewers involved in the publishing process of these papers.

JSSH is currently accepting manuscripts for upcoming issues based on original qualitative or quantitative research that opens new areas of inquiry and investigation.

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PERTANIKA JOURNALS

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The Effect of Brand Equity and Perceived Value to Marketing Mix

Faransyah Jaya*, Muhtosim Arief, Pantri Heriyati and Dyah Budiastuti

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ABSTRACT

This paper aims primarily at examining the effect of brand equity and perceived value on marketing mix. The paper is written based on empirical survey with the active participations of 256 respondents who are considered as film viewers in Indonesia. Based on structural model testing with Structural Equation Modeling, one of major findings revealed from this study showed that brand equity and perceived value had significant and positive effect on marketing mix. The finding implies that it is crucial for the Indonesian film production companies to collaborate these variables to enable attracting film viewers to cinema.

Keywords: Brand equity, Indonesia film viewers, marketing mix, perceived value

INTRODUCTION

Indonesia is a big market for film industry with the total population of 260 million people across the country (Worldometers, 2017). In 2016, one single Indonesia film recorded the highest number of 6,858,616 ticket sold. But on the other hand, one film just reached as low as 600 tickets sold (Filmindonesia, 2017) which raises the question to the writer regarding this big gap between both films. Film production companies must understand factors that affect movie sales and determinant factors that attract people to come to cinema and watch the films (Mohammadian & Habibi, 2012). What marketing strategy could help the companies in reducing investment risk from film production and whether production company brand has something to do with it. Previous papers concluded that brand equity and perceived value affect marketing mix (Cobb-Walgren et al., 1995; Ravald & Grönroos, 1996; Yoo et al., 2000). This paper is to emphasize on how brand equity and

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perceived value of Indonesia film viewer affect the marketing mix dimensions such as product, price, place, and promotion. Previous research regarding Indonesian film industry are very limited especially in the area of marketing. This paper will contribute to existing literature as well as providing practical implications for Indonesian film production companies.

LITERATURE REVIEW

Marketing Mix

Marketing mix is set of controllable marketing tools that any company could implement to market their product and influence the demand (Javad et al., 2014). More particularly, there are four dimensions of film marketing mix which are product, price, distribution and promotion (Mohammadian & Habibi, 2012). Product as dimension of marketing mix is one of film's components offered in cinema which are production team (film director, film actor, and film producer), genre, film budgets, music and film nomination and film awards achieved in film festivals. Price is described as the money that customers pay in exchange of service or product based on the value they receive. In film industry, price is the cinema ticket and cost relate to the film being watched. Price fairness for consumers develops based on their perception and will be a proper predictor for their purchase decision (Mirabi et al., 2015).

Consumers use price as indicator of product quality or benefits that makes price positively related to perceived quality. Price has positive relation to brand equity by increasing perceived quality (Yoo et al., 2000). Place or distribution is location of the cinema that shows the film based on the schedule (Mohammadian & Habibi, 2012). Cinema location is important to attract an audience who prefers willingly to reach cinema with minimal cost and time. Promotion describes as direct and indirect communications between individuals, groups, and organizations as customers to get informed and motivated toward buying company's products or services. Production company utilize promotion as an important tool to introduce film to film viewers. Type of promotion used in film marketing mix are word of mouth, movie reviews, movie posters, television, radio, press and Internet commercials (Mohammadian & Habibi, 2012). Implementation of promotion in the real world is also called advertising. It helps company to create awareness of potential consumer which leads to decision of buying the product. Advertising can affect perceived quality of a brand and influence usage experience of consumer (Cobb-Walgren et al., 1995; Mirabi et al., 2015). In reality, advertising is not cheap, and people have lost their trust to media even tough amount of advertising is related positively to brand awareness as part brand equity (Yoo et al., 2000; Cobb-Walgren et al., 1995).

Theory supporting marketing mix is Relationship Marketing Theory with objective of developing long term relationship with the consumer or in this research called film viewers. Ravald and Grönroos (1996) defined relationship marketing as a way to establish, maintain,

and enhance relationships with customers and other partners to seek profit so that the objectives of the parties involved were achieved. Establishment of relationship by film production company and film viewers will attract and build long term potential revenue especially in film industry which production company's business is to produce film continuously and attract the same film viewers to come and see the film in cinema.

Brand Equity

Yoo et al. (2000) stated that marketing mix such as price and promotion influenced by brand equity. Brand equity is knowledge and experience of the consumer that creates value for the firm as well as for the customer. In film industry, the brand is production company name which film viewers check the production company before they select the film title. High brand equity means consumers with highly positive and strong relation to the brand will perceive the brand has high quality and develop loyalty to the brand. There are four dimensions to measure brand equity which are brand image, brand awareness, perceived quality and brand loyalty (Khan et al., 2015). Brand image as dimension of brand equity is defined as perception and belief of consumer about the particular brand (Khan et al., 2015). People's experiences, perceptions, beliefs, feelings and knowledge develop brand image of the brand (Soltani et al., 2016). Brand image includes knowledge, customer opinions and physical and non-physical characteristics of the product; the image that customers grant to a product (Li et al., 2011). By knowing the brand image, consumers are able to recognize a product, evaluate the quality, reduce purchase risks, and attain the satisfaction. Knowledgeable consumers have high chances of being loyal (Khan et al., 2015).

Brand awareness as dimension of brand equity define as the ability of a consumer to recognize and to recall a specific brand in different situations. Brand awareness help consumers to recognize a brand from another brand and help them in the process to make purchase decision. Product with higher brand awareness will have better quality assessment and higher market share. Brand recall and brand recognition are parts of brand awareness. Brand recall happens when consumers can recall a brand name exactly after seeing a product category. Brand recognition means consumers are able to identify a brand name when there is a brand cue. According to Chi et al. (2009), brand awareness influences purchase decision through brand association, thus product with positive brand image will help the marketing purposes.

Perceived quality as dimension of brand equity can be defined as consumers perception of quality in general or superiority of a product or service based on their expectation in comparison with the alternatives. Perceived quality is based on key dimensions that consists of product specification such as reliability, performance and brand (Mirabi et al., 2015). Brand with high perceived quality means that consumers with long-term experience related to the brand able to recognize

the differentiation and superiority of the brand itself (Yoo et al., 2000). Factors such as previous experience of consumers, level of education, perceived risk, and situational variables for example consumer purchase purpose, purchase situation, time pressure, and social background will affect perceived quality (Khan et al., 2015). In the process of purchasing, consumers are always influenced by their preferences and perception such as product quality, price and styles before deciding to purchase the product (Saleem et al., 2015).

Brand loyalty as dimension of brand equity can be defined as the attitudes of consumer related to brand preference of a product. Consumers with brand loyalty will have repurchase commitment and most likely will not make a switch to another brand (Khan et al., 2015; Yoo et al., 2000). Indicator of brand loyalty are repurchase rate, consumers satisfaction, and repurchase commitment in the future (Chi et al., 2009). Theory that supports brand equity with relation to film industry is theory of relational cohesion that emphasizes the emotional or affective factors in commitment formation (Lawler & Yoon, 1996). This theory explores how people exchange become committed to their relationship with positive emotions and develop perceptions of the relation as a cohesive unit.

Based on literature above, first hypothesis is developed that brand equity has impact on marketing mix.

H1: Brand equity has impact on marketing mix

Perceived Value

According to de Matos and Rossi (2008) consumers perceived value is consumer's overall assessment of a product based on their perceptions of what is received and what is given. Perceived value is a trade-off between of what a consumer gets such as quality, convenience, volume and what a consumer gives such as money, time, and efforts. Consumers seek this value before they decide to purchase a product. This valuation process is very subjective, individual, and varies among consumers. Consumers could evaluate the same product differently on different situation such as in the film industry (Ravald & Grönroos, 1996). Perceived values affect marketing mix and have several dimensions such as perceived price value, emotional value, functional value, social value, and logical value (Akdeniz, 2012; Ravald & Grönroos, 1996; Soltani et al., 2016). Perceived price value as perceived value dimension is how much value for consumer come from the product. Emotional value as perceived value dimension is the value of a consumer emotional based on the service experienced, includes consumer feeling or emotional conditions that developed based on consumption experience. Functional value of product quality as perceived value dimension is a value judged by consumer in related to product superiority and perfection. Functional value as perceived value dimension involves operational areas of service. Perceived desirability is one of the characteristics of the product or service as part of the functional value.

Perceived social value as perceived value dimension is how much the product can connect consumer to their social group. The logical value as perceived value dimension includes quality of service and price of the product. Theory that supports perceived value is Consumption Value Theory (Aulia et al., 2016). This theory believes that consumption value is based on the customer decision or choice whether to buy or not to buy and to choose between two products or one specific brand over another.

Based on literature above, second hypothesis is developed that perceived value has impact on marketing mix.

H2: Perceived value has impact on marketing mix

MATERIALS AND METHODS

Online survey was used for the purpose of this study with particular reference to use the Likert scale questionnaire. There were a total of 305 respondents asked to participate to complete the questionnaire and 256 completed all the questions, with a response rate of 84%. Data collected was analyzed using Structural Equation Modelling Partial Least Square (PLS-SEM) so researchers could examine a series of dependence relationship simultaneously and testing multiple equations involving dependence relationship (Hair et al., 2010). The result of Outer model, convergent validity and composite reliability is provided in Table 1 and PLS-SEM is provided in Figure 1.

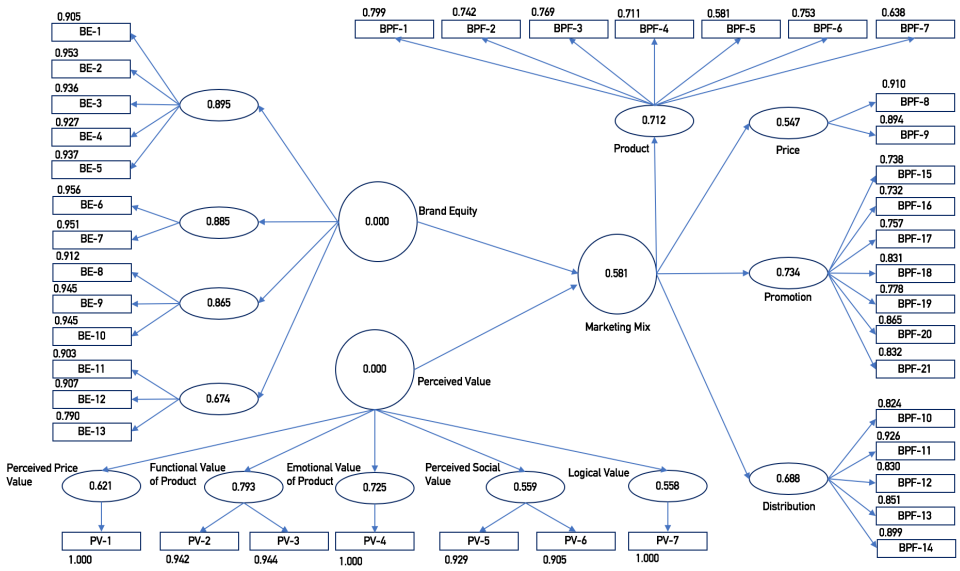

Figure 1. PLS-SEM results

Table 1

Loading factors

Code	**Dimension of Brand Equity**	**Value**	**AVE**	**Indicator of Brand Equity**	**Value**
BE-1	Brand Image	0.946	0.895	Experience	0.905
BE-2				Perception	0.953
BE-3				Belief	0.936
BE-4				Feeling	0.927
BE-5				Opinion	0.937
BE-6	Brand Awareness	0.941	0.885	Brand Recall	0.956
BE-7				Brand Recognition	0.951
BE-8	Perceived Quality	0.93	0.865	Consistency	0.912
BE-9				Performance	0.945
BE-10				General Perception	0.945
BE-11	Brand Loyalty	0.821	0.674	Repurchase rate	0.903
BE-12				Satisfaction	0.907
BE-13				Repurchase Commitment	0.79
Code	**Dimension of Perceived Value**	**Value**	**AVE**	**Indicator of Perceived Value**	**Value**
PV1	Perceived price value	0.788	0.621	Price Value	1
PV2	Functional value of product quality	0.891	0.793	Product superiority	0.942
PV3				Overall production	0.944
PV4	Emotional value of the product	0.851	0.725	Emotional evaluation	1
PV5	Perceived social value	0.559	0.559	Acceptance from social environment	0.929
PV6				Influence from social environment	0.905
PV7	Logical Value	0.558	0.558	Quality of the price	1

Table 1 *(Continued)*

Code	Dimension of Marketing Mix	Value	AVE	Indicator of Marketing Mix	Value
BPF-1	Product	0.844	0.712	Production Team: Producer	0.799
BPF-2				Production Team: Writer	0.742
BPF-3				Production Team: Director	0.769
BPF-4				Production Team: Actor	0.711
BPF-5				Genre	0.581
BPF-6				Music	0.753
BPF-7				Nomination and Award	0.638
BPF-8	Price	0.74	0.547	Cinema Ticket	0.91
BPF-9				Cost related	0.894
BPF-10	Place / Distribution	0.829	0.734	Cinema Location	0.824
BPF-11				Easiness	0.926
BPF-12				Comfort	0.83
BPF-13				Availability	0.851
BPF-14				Accessibility	0.899
BPF-15	Promotion	0.857	0.688	Word of Mouth	0.733
BPF-16				Movie Reviews	0.732
BPF-17				Movie Posters	0.757
BPF-18				Television	0.831
BPF-19				Radio	0.778
BPF-20				Press	0.845
BPF-21				Internet Commercials	0.832

RESULTS AND DISCUSSIONS

Based on Table 2, it is found that H1 was accepted with brand equity to marketing mix score was 3.138176 and H2 also accepted with Perceived Value score of 15.446414. The result shows that both brand equity and perceived value have impact toward marketing according to Indonesia film viewers. Promotion with score 0.857 is the most important part of the marketing mix followed by product 0.844, place/ distribution 0.829 and price 0.74. Price rank last since ticket price is already set by the

cinema. Under promotion, press media is still leading with score of 0.845 as the most indicator that impact film viewers to see the film. Interestingly, internet commercial 0.832 showed up number two and surpass TV 0.831 and Radio 0.778. It seems that marketing trend using online platform is increasing. Film Producer 0.779, director 0.769 and music 0.753 are the top three ranks under product as indicator for film viewers to select the film which means Indonesia film viewers make those three indicators as important before they choose the film title. Easiness to come to cinema 0.926 also influences film viewers to see the film under place/distribution dimension of marketing mix which means production company needs to select the right cinema location for their film so their target market can come to cinema to see the film. Brand equity of the production company is also important. Production company image score of 0.946 means that perception (0.953) from film viewers regarding image of the company is very important. Brand recall (0.956) means film viewers need to be educated regarding the company name and if they are satisfied (0.907) after seeing the film, they will remember the name of production company and their perceived quality, thus developing brand loyalty for their future film production. Perceived value for film viewers is also important since they seek for functional value of product quality (0.891) of the film. Emotional value (0.851) is next important indicator for film viewers so they get emotional value after seeing the film. Perceived price value (0.788) also means price value is important to Indonesia film viewers and continued by perceived social value (0.559) and logical value (0.558). The result showed interesting finding that acceptance from social environment (0.929) somehow important for Indonesia film viewers.

Table 2

Hypotheses result

Brand Equity to Marketing Mix	3.138176
Perceived Value to Marketing Mix	15.446414
Based on T-Table 1.96	
H1: Brand equity has impact toward Marketing Mix	Accepted
H2: Perceived Value has impact toward Marketing Mix	Accepted

CONCLUSION

Production companies must be able to collaborate brand equity, perceived value and marketing mix to be able to attract film viewers to cinema and watch the film. To be able to do that production company

need to able to manage available marketing budget especially when the competition with others Indonesia films. Production company must be able to develop marketing mix that combines right product (producer, director and music), with the right promotion (press and internet commercials), distributes to the right cinema location based on target market, and develops ticket price promotion. Included in the marketing mix implementation, production company needs to increase their brand image, brand awareness, perceived quality and thus brand loyalty. Production marketing strategy must be able to convince Indonesia film viewers for value of the film that they will see in cinema such as quality of the film, emotional film viewers, price value, social value and logical value. With the right combination of marketing mix strategy, strengthen production company brand equity and convincing perceived value of the film to Indonesia film viewers, production company should be able to attract film viewers to cinema and see the film.

There are several discussions that should be interesting for further research such as price promotion, internet commercials, acceptance from social environment and film quality. First, price promotion with other brand to reduce price or increase benefit from the price that Indonesia film viewer pay is not common for Indonesia film, yet. Second, the important of internet commercial to promote film also an interesting discussion whether the behavior changes because of the new generation of film viewers. Third, how production company can utilize the acceptance from social environment of Indonesia film viewers. Lastly, quality of Indonesia film if compared to Hollywood films with high budget and how the production company can come up with the strategy to overcome perceived quality.

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Enhancing the Employability of Graduates through an Industry-led Initiative

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ABSTRACT

The introduction of Vision 2020 as a national policy was aimed at gearing Malaysia for the status of a developed nation. This led to the introduction of numerous initiatives that have been carried out for almost two decades now. It was realised very early on that the move from an agriculture-based economy to one anchored to production and technology was heavily dependent on a competent, highly-qualified workforce. For this reason, the employability of Malaysian graduates became a primary national concern. While the number of institutions of higher learning and the number of graduates increased, industry players had continued to lament about the alleged mismatch between industry needs and the capabilities of graduates. This paper reports on a talent-development programme that was designed and tested to ascertain its effectiveness in preparing unemployed Malaysian graduates for real-world challenges in the industry. Drawing on a content analysis of reports prepared by trainers involved in the running of two cycles of this talent- development programme, we identified emerging themes that drew attention to key elements contributing to the gainful employment of the majority of the participants. The results reveal the importance of industry-led initiatives in dealing with the issue of graduate employability. Mentorship and a well-designed English language proficiency programme were found to have significantly increased the employability of the trainees. These key strengths of the programme serve as a framework for the development of future programmes that should be developed through the collaboration of industry players and institutions of higher learning.

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INTRODUCTION

Concerns about graduate employability can be traced over several decades. As early as the 1970s, Greenberg and Tully (1976) presented a report on the employability of graduates from an American college, based on the views of employers, while Baran and Shoemaker (1977) found employers to be strongly influenced by the effective communication and problem solving skills of potential employees. Since then, research on graduate employability has been carried out in many countries as demand for a highly competent workforce became a global concern. This continued global concern in the 21st century is illustrated by the works of Garwe (2014) who looked at initiatives aimed at enhancing the employability of graduates in Zimbabwe and Gokuladas (2010) who focused on the dissatisfaction of employers towards the skills of graduates in India. In the study by Gokuladas (2010), it was found that the non-technical skills of engineering graduates served as a stronger predictor of employability compared to their technical knowledge.

Many studies in the past have focused on the employability of graduates from specific disciplines, suggesting that the nature of individual courses is a determinant of employability. For example, while the study by Gokuladas (2010) focused on engineering graduates, Minten (2010) studied the employability of sport graduates, Winstead et al. (2009) looked at business graduates and Hagger (2008) examined the employability of psychology graduates. Studies have also looked at employability across multiple disciplines. Such cross-disciplinary studies by Mason et al. (2009), Smith et al. (2000), and Su and Feng (2008) were interested in understanding the factors that affected employability regardless of discipline.

Relatively fewer studies have been carried out on graduate employability in Malaysia. Lim (2010) identified predictors of employability to include ethnicity, English language proficiency, and the types of degree obtained. Khoon et al. (2013) reported improvement in the employability of graduates from one university but noted that the degree of improvement was dependent on disciplines of study. This correlated with the findings of an earlier study at the same university by Omar et al. (2009). The limitation of these studies was that they involved the examination of graduate employability at specific Malaysian institutions of higher learning. As such, the conclusions drawn were only relevant to the experiences of those specific institutions. Departing from such focus, Yoong et al. (2016) examined the content of the National Graduate Employability Blueprint 2012-2017 and observed how this policy document positions employers as powerful entities who dictated the role of institutions of higher learning in ensuring that graduates are employable.

Unlike the aforementioned studies, this paper adds a new dimension to research on graduate employability as it examines an industry-led initiative that was geared towards enhancing the employability of graduates. More specifically, this paper reports on the effectiveness of an industry-informed talent-development programme that was designed to support unemployed Malaysian graduates gain employment. The research objectives of this paper are:

To identify key elements in the training programme that led to the gainful employment of the majority of the participants

To examine the role of industry players in the organisation and execution of the training programme

Background of the Programme

The programme was conceived as an upskilling talent development program that equipped graduates from institutions of higher learning (IHL) with skills desired by multinational corporations (MNCs). The hope was that the participants would benefit from this bridging programme that would expose them to industry challenges while enhancing their communication skills and thereby making them more employable. The programme that ran for 10-12 weeks focused on the development of soft skills, hard skills, as well as management skills. In addition, the participants also underwent a Business English proficiency course.

The content of the programme itself was developed through a series of round table discussions between the programme developers, universities and industry players. Among others, the discussions focused on the mismatch as reflected by graduates who lacked competencies required by MNCs in Malaysia. Further discussions with university representatives, industry executives, and training providers led to the development of the training programme.

The programme ran in 2013 with support from 4 industry partners. A total of 333 graduates from 5 universities participated. The industry partners first carried out job interviews for various positions that were vacant in their companies, and only seven of the 333 candidates were offered positions in the companies. Next, 74 of the unsuccessful candidates were selected to undergo a 12-week training programme, designed through collaboration between universities and the industry partners. Having completed the 12-week programme, 70 of the 74 trainees found gainful employment within a period of three months, thereby suggesting that the nature of the training programme they attended contributed to their successful employment. In the following year, a training programme on a larger scale was carried out.

In 2014, the programme was run with financial support from the Ministry of Education Malaysia. It involved five industry partners and graduates from six IHLs. A total of 692 graduates applied to participate in the programme. They were asked to sit for an online English test to assess their proficiency; however, only 435 graduates participated in this assessment exercise. Of this number, 294 graduates

Table 1
Distribution of trainees to industry partners

Companies	HSBC	IBM	TECH MAHINDRA	EMERIO	AIG
Distribution of Trainees	50	23	24	22	20

achieved scores that placed them in a B2 band or higher in the CEFR[1] scale. Similar to what was carried out in the pilot programme, job interviews were held for these graduates and 30 were employed. Another 76 were offered places in the programme. As the programme could take in more trainees, another round of selections was carried out with the support of universities. Finally, 139 graduates registered for the programme, and each of them was assigned to an industry partner as reflected in Table 1.

The assignment of trainees to the industry partners was based on their academic backgrounds as well as available places as determined by the companies. All trainees were provided accommodation, insurance and medical coverage, and a daily meal allowance.

Two training providers were involved in the programme. One focused on the development of soft skills and management skills while the other focused on English language proficiency. The decision to offer these courses as part of the training programme was based on discussions between universities and the industry partners. In addition to these courses, the participants were also trained by technical trainers and Hiring Managers at the various industry partners. The training provider responsible for soft skills development worked closely with the industry partners to ensure that the correct skill sets and knowledge were being disseminated. Talks by industry leaders and human resource consultants were also organised as part of the training programme.

METHOD

Data collection involved the analysis of extensive reports that were prepared by training providers. The training providers, made up of those tasked with providing knowledge and skills enhancement as well as those tasked with supporting the development of communication skills were asked to keep detailed records about the management of the training programme as well as observable improvements in the trainees. This record keeping took the form of reflective journals maintained by the trainers. The trainers were advised to fill in the reflective journals on a daily basis so that their day-to-day observations were captured. However, it was agreed before the training programme began that the reflective

1 CEFR refers to the Common European Framework of Reference that serves as a universal guideline to describe the achievement of language learners. There are six reference levels (A1, A2, B1, B2, C1, C2), with A1 used to indicate a beginner and C2 to indicate mastery of the language. A B2 is described as an independent user of the language.

journals would only serve as a source of reference to the trainers who had to prepare reports at the end of the training programme. The trainers felt that the need to submit the reflective journals in addition to the final reports would be too taxing on them as they would feel compelled to prepare rather details reflective journals, and this would be too time-consuming for them.

Drawing on the reflective journals, each trainer prepared final reports about the management of the training programme. The trainers collectively agreed upon a set of guidelines for the preparation of the report. Among others, they were asked to include information about their experiences in developing the soft skills and management modules through discussions with the industry partners involved in the programme, namely HSBC, IBM, Tech Mahindra, Emerio and AIG. They were also asked to include feedback from the trainees. These guidelines therefore also served to inform trainers about what was to be included in their reflective journals. The final reports were then collected and analysed to unpack emerging themes through a content analysis of each report.

In addition to the content analysis to identify emerging themes, a pre-test and a post-test was carried out before and after the communication skills module was delivered. The aim of conducting these tests was to determine if the intervention activities had led to improvements in the performance of the trainees. Both tests were developed by the training provider and benchmarked against the CEFR to allow for a universal comparison of performance in English language skills.

The programme on developing the trainees English language communication skills were made up of 90-hours of a Business English course. The course itself contained a variety of context-specific activities that placed trainees in real world situations where they had to communicate in English. Beyond a focus on their productive skills of speaking and writing, the course also offered activities to enhance their receptive skills of listening and reading. The pre-test and post-tests were on-line assessments that covered vocabulary, grammar, as well as listening and reading skills. There were several versions of the test, and all were calibrated to the same difficulty level. The participants were assigned version 1 as the pre-test and version 2 as the post-test.

The results did not provide a passing or failing score. Instead, the numerical score was matched to the 6 bands in the CEFR. It must be noted however, that the assessment was carried out independently by the training provider and no external body was involved in verifying that the assessment process was indeed CEFR-aligned.

Limitations of the Study

The researchers were invited to analyse the reports of the trainers only after the programme had ended. For this reason, other methods of data collection such as observations of the training sessions, and interviews with the trainees could not be carried out to triangulate data gleaned from the trainers' reports.

The findings and conclusions drawn in this paper are based solely on an analysis of reports prepared by the trainers involved in programme. These reports in turn were prepared based on reflective journals that were maintained by the trainers as well as feedback from the trainees. As there was no opportunity for the authors of this paper to observe the practices during the running of the programme or to speak to the trainees, claims made in the report could not be verified. As a case in point, claims of improvement in English language proficiency as reflected in the pre-test and post-test scores. Benchmarking assessments against the CEFR is a complex process and it should be noted that the CEFR does not necessarily guarantee that different trainers used the proficiency scales in comparable ways (Harsch, 2018). Furthermore, the fact that the training providers were both the trainers and assessors of the participants' performance weakens the validity of their report.

RESULTS AND DISCUSSION

The analysis of reports prepared by the training providers revealed the emergence of the following themes which guide the discussion in this section:

i. Content development through collaboration

ii. Sharing of tacit knowledge by industry partners and mentorship

iii. Improved communication skills and overall confidence and drive

iv. Commitment of industry partners

Content Development through Collaboration

The reports revealed that the training programme itself was conceived through discussions between training providers, universities and industry partners. These discussions centred on the apparent mismatch between the skills graduates possessed and what was required by industry. Observations on this mismatch are reiterated in various studies around the globe (Allen & De Weert, 2007; Hennemann & Liefner, 2010; Wong, 2016), and all highlight the importance of ensuring that graduates possess the right skill set for the workplace. Clearly, institutions of higher learnings need to work closely with industry players when developing programmes for students as stakeholders are likely to have different understandings and expectations of programmes that prepare graduates for the workplace (Fleming & Haigh, 2017). The analysis of the reports revealed that discussions between training providers, universities and industry partners led to the decision that the training programme should focus on the enhancement of English language proficiency, soft skills and management skills. In addition to this, it was also collectively decided that the trainees would be provided with hands-on work experience by assigning them to various industry partners. Indeed, exposure to the demands of the workplace is a key determinant in the success of training programmes preparing graduates for employment (Goldberg et al., 2014; Smith-Ruig, 2014).

Beyond collaborating in the development of the programme content, industry partners also contributed to the success of the training programme by providing the trainees with the opportunity to gain first-hand work experience through a mentorship programme. This was yet another theme that emerged from the reports that were analysed.

Sharing of Tacit Knowledge by Industry Partners and Mentorship

Modules were developed for the training programme, and some of them were created with an emphasis on developing an understanding of the industry and the company that every participant was assigned early on in the training programme. These modules were handled by corporate trainers, and upon completion of the modules, the trainees were provided access to real work experience at the companies.

When the trainees were asked to evaluate the modules introducing them to the organisations that they were assigned, these were some of the remarks they provided:

• Helped trainees to prepare for the working environment

- Helped trainees to gain required skills for employment in MNCs
- Helped trainees to manage time and money effectively and wisely
- Helped trainees to gain confidence in presentations
- Helped trainees to practice English in communication by doing regular presentations.
- Good course with good experienced corporate trainers.
- Helped with teambuilding , confidence and got to know new people
- Very good modules as they fulfill current requirements
- Trainers are very supportive and knowledgeable
- The syllabus covered relevant topics

Clearly, the opportunity of being trained by corporate trainers added a dimension that the participants were very receptive to. It provided them an opportunity to experience the kind of on-the-job training that they would experience in the real world. Corporate trainers are in a unique position to offer trainees access to a great deal of information and knowledge that academics in institutions of higher learning may not have access to (Kessels, 2001). This is because, unlike academics, corporate trainers are able to tap into tacit knowledge that often remains within the individual industries.

As mentioned earlier in this section, every trainee in the programme was assigned to an industry partner. This was done early on in the training programme and the distribution of the trainees to the industry partner was dependent on the availability of places within each organisation as well as the academic background of the participants. The decision to assign each trainee to an industry partner appeared to have a positive impact on the trainees. The trainees

reported feeling a sense of pride because they felt they belonged to a prestigious organisation. This was encouraged by the fact that throughout the training period, they were constantly being identified in relation to the organisation they were assigned.

In addition to completing the corporate training modules, the programme also included industrial attachments where the participants received on-the-job training at the organisations they were assigned. Equipped with the knowledge they gained through the corporate training modules, the trainees were able to begin their industrial attachment with a greater degree of confidence. As part of their commitment to the programme, the industry partners agreed to assign each trainee to experienced personnel. They would serve as mentors to the trainees. Among others, the mentors trained the participants in specific skills needed to carry out their roles and responsibilities within the organisation. The trainees themselves reported favourable experiences in relation to the mentoring they received, consistent with the findings of Harris et al. (2015), who reported that the overwhelming majority of trainees in a provincial government ministry mentoring programmes found learning to be effective. The receptiveness of trainees towards mentoring programmes is because such training offers the situational context into which knowledge can be applied (Naweed & Ambrosetti, 2015). Furthermore, being mentored also gives trainees the opportunity to impress upon their mentors their dedication and keen interest in joining the organisation, and this possibly makes them more appealing candidates for a permanent position at the organisations. However, an important determinant in the success of any mentoring programme is quality mentors who encourage committed newcomers (Lam et al., 2002).

Improved Communication Skills and Overall Confidence and Drive

A pre-test was given to ascertain the students' English language proficiency level at entry point into the programme. At the end of the programme, a post-test was administered to gauge if there was improvement in the trainees' English language skills. Tables 2 and 3 that follow show the pre-test and post-test results of the trainees based on the CEFR scale as well as the mean and standard deviation values of both tests:

Table 2

Number of trainees in relation to performance in pre-test and post-test

CEFR Scale	A2	B1	B2	C1	C2	Total
Pre-test	1	21	88	28	1	139
Post-test	0	4	42	79	7	132*

* 7 trainees were absent for the post-test due to personal reasons

Table 3

Mean and standard deviation in pre-test and post-test

	Pre-English Score	Post-English Sore
Mean	53.86363636	68.60606061
Standard deviation	11.93351348	10.7998852
Observations	132	132
P value	0.000**	

P < 0.005 (two-tailed test)
(N=132)

Table 2 reveals that all except four of the trainees achieved a minimum B2 after completing the programme. Table 3 displays the pre-test and post-test means, standard deviations and P value. The mean scores for the pre-test and post-test are 53.86 and 68.60 respectively. The difference between means is statistically significant. In the above table, since the P value is 0 (< 0.05) at 5% level, it can be concluded that there is significant difference between pre-test and post-test scores. Given the significant paired-sample *t* tests, it can therefore be concluded that the students' English language proficiency was greater at the end of the program than at the beginning of the program. As revealed in Table 2, the majority of the trainees (79) were found to be at C1. The observable improvement of the majority, particularly from B1 to B2, and B2 to C1, clearly correlates with the gainful employment of the programme participants and supports the observation by Waldron and Leveitt (2009) in their longitudinal study which reported how communication-intensive training programmes led to the employment of 40% of trainees in a training programme.

Both language teachers assigned to teach on the Business English course and the corporate trainers focusing on soft skills and management skills commented on the trainees' English language proficiency in their individual reports. According to the teachers' reports, the programme participants were initially found to be reticent and uncomfortable using English for communication. The early reticence was probably caused by the fact that the trainees almost never used English in daily interaction. However, the programme required the trainees to be immersed in an English speaking environment for an extended period of time and this appeared to benefit the trainees. Among others, the trainees had to be reminded frequently to converse only in English at all times. The language teachers observed that after approximately two weeks of the immersion programme, the trainees became accustomed to communicating in English among themselves, and required less reminders. Further observations were also found in the trainers' reports:

i. ... most of the students had a lack of proficiency in using the English Language.

Only two or three students were comfortable in the English Language and were able to express their thoughts well. Class participation was limited to the same group of students who felt at ease using the English Language but as a facilitator I encouraged and prompted the others and this slowly brought most of them out of their "shells".

ii. ... However, at the culmination of the 10-week programme, there was a discernible difference in the students' level of confidence and they were more forthcoming in using the English Language.

iii. The students were very quiet and very reluctant to participate in the first week. Subsequently they began to interact. English language was a great challenge to overcome. By the end they exhibited great confidence and able to communicate in English reasonably well.

iv. They had courage to participate though their English level was below requirement. Due to their courage they improved the language tremendously during the programme.

v. Some of them had much difficulty in communicating in English during the beginning of the programme but by the end they were able to do presentations in English.

Several factors contributed to these observable improvements. First, rapport between the language teachers and the trainees was seen to be important in helping the trainees gain confidence. This is a point stressed by Carter and Henrichsen (2015) who highlighted the importance of "teacher pedagogical practices and behaviours" that helped create a learning environment conducive for adult ESL/EFL learners.

Second, the English language training provider also held discussions with representatives of the various companies to which the trainees were assigned and this was also believed to have contributed to the success of the language course. During these discussions, the language trainers were able to discern the specific language skills that were desired by the various organisations, and this in turn helped them design activities and develop supplementary material that helped trainees hone the right skills. This collaboration to identify the real world needs for English at the workplace is key for the development of an effective English language programme (Kassim & Ali, 2010).

Third, trainees were asked to assess the language teachers and the Business English course at regular intervals rather than at the end of the programme. This allowed the teachers to make changes to their delivery of lessons as well as changes to materials selection to realistically meet the needs of the trainees. The observations in this study are well supported by Black and Wiliam (1998), Kim and Kim (2017), and Shute and Kim (2014) who asserted that regular feedback based on assessments could indeed enhance learning.

Commitment of Industry Partners

The last and perhaps most significant theme emerging from the analysis of the reports was the theme of commitment. Besides the obvious commitment to the programme by the trainees who were

extrinsically motivated to gain employment, the commitment of the other stakeholders in the programme, particularly the industry partners appeared to play a crucial role in the success of the programme. As reported earlier, the role of the industry partners was felt most prominently in the assignment of highly skilled and experienced corporate trainers from the organisations to collaborate with academics in developing the training modules, and in the opportunity provided to the trainees to gain industry experience under a mentoring programme. Because the modules were developed by highly experienced corporate trainers, much of the content was designed with the needs of managers in mind. Content such as this, according to the training providers, allowed trainees to develop strong management skills. Among others, the activities in class focused a great deal on problem-solving and being creative in addressing problems. Teamwork was also emphasised through projects with tight deadlines.

The background of the trainers was also reported to be a key contributing factor towards the success of the programme. The good rapport between trainers and trainees was also seen as contributing to the overall effectiveness of the programme. All trainees were asked to rate the trainer assigned to them by group and the following was the average approval rating of each trainer:

Trainer A (IBM) - 97.6%
Trainer B (HSBC – 1) - 98.2%
Trainer C (HSBC – 2) - 97.6%
Trainer D (EMERIO) -98.6%
Trainer E (TECH MAHINDRA) - 97.6%
Trainer F (AIG) - 99.3%

In addition to the modules and mentoring, the trainees were also exposed to Corporate Social Responsibility (CSR) programmes managed by the organisations. The aim of incorporating this element into the training programme was to help the trainees develop their soft skills, that is, the development of interpersonal qualities needed to work in a team to resolve problems related to people (Taylor, 2016). The CSR element was worked into the training with trainees completing reflection essays on their participation at the CSR activities. The training providers were with the trainees at these events and reported on how the activities shaped the much needed skills and values needed in the corporate world. Among others, the training provider asserted that the CSR activities encouraged the development of leadership skills, the ability of the trainees to plan and work in a team as they were sensitised to their social responsibilities. The CSR activities included the organisation of recycling projects, helping out at old folks' homes and running competitions for children from underprivileged homes. According to the trainers, the trainees exhibited maturity, confidence and independence when organising and participating in the various CSR activities. These observations are consistent with those of Canziani (2014) who asserted that immersing interns in CSR activities would allow them to engage better with goals such as learning

about stewardship and ethics. The trainees themselves provided the following feedback based on their CSR experiences:

- It taught us to be more appreciative and be humble
- The CSR program gave me the opportunity to learn more about the *Orang Asli* (Malaysia's indigenous tribe) and my view of them has changed
- It was a very inspiring activity and has opened my mind to using the skills at my future company
- I learnt to think differently

The observation of the trainers and feedback from the trainees themselves support the findings of Mozes et al. (2011) and Supanti et al. (2015) who found that participation in CSR activities increased motivation to work among employees.

Resulting Change in Participants

As a result of quality content development, the sharing of tacit knowledge by industry partners, a focus on communication skills and the overall commitment of industry partners, the trainers made the several observations in their respective reports with regard to changes they observed in the participants. The analysis revealed subthemes of commitment to the programme, self-directedness, and knowledge enhancement. Some of the observations of the trainers are reproduced here:

Commitment of the Programme. i. The participants generally displayed an interest in the programme. However, at the onset of the programme, most of them were even lacking confidence in their abilities to delve into the corporate world.

ii. The participants were very determined and committed to learn more.

iii. Another point to note is that the soft skills taught helped to develop their competency and knowledge which gave them the confidence to venture into the corporate world. What these students showed was that even an average graduate could be moulded to take on a job with a High Impact Company like IBM.

iv. Most of them were participative from the onset. They were very determined to succeed. The students generally were very enthusiastic. Apart from a few who struggled with the English language, the majority was conversant. They also exhibited good team spirit and they were the class that performed best in the CSR project. The students exhibited interest in what was being taught and some of the students actually asked pertinent questions in relation to the modules taught. This showed that they were applying their critical thinking skills.

v. Two of the students had job offers in the midst of the training but they opted to turn down the offers as they were impressed with the training and they felt that this training would bode well for their future.

Self-directedness. i. They even organized themselves by ensuring that every student was required to do a presentation before the commencement of their classes. They also made it a point that they kept changing the seating arrangements everyday so that the

students would mingle and learn to adapt to changes thrust upon them.

ii. Overall the students were average but again this was not a handicap at all as they were able to grasp what was being taught. The class was highly participative and they also did well in their CSR project. Some of them also displayed strong tendencies to be entrepreneurs.

iii. This was an ambitious group who was willing to take risks and displayed good communication skills and has high potential with proper coaching and guidance.

iv. On many occasions, they took their own initiative to plan and organise learning skills and to hone their skills.

Knowledge Enhancement. i. (At the beginning) they were not receptive to the importance of soft skills as compared to technical knowledge. It was only at the end of the programme that they recognised the fact that soft skills are also necessary and equally important in the corporate world. They were committed in learning and were very comfortable in the working environment.

Despite strengths of the programme which led to the gainful employment of the majority of the trainees, there were also some participants who provided critical feedback for improvement:

- English class should have specific schedule to be followed.
- No proper system on monitoring the trainees to make sure if they are speaking in English
- Job scope that will be offered to graduates after this programme is not clearly stated
- Choice of companies limited which means the trainees do not have choices
- The schedule changes (weekend activities) should be informed earlier.
- The trainees don't have the chance to do on-the-job training at [name of organisation omitted]
- Should provide sufficient information about this program so people don't hesitate to join this program
- Do not know the future path after the end of training.
- Feel insecure because of the uncertainty in job future
- Not given specific training for job or task

The comments above reveal that there are gaps within the programme that need to be address for further improvement. While the overall experience appeared to have been good, there were trainees who did not benefit as much as others. For example, while the mentoring programme appeared to have worked well, there was a trainee who felt that he/she did not receive the exposure that other trainees received.

CONCLUSION

The programme boasts an impressive success rate of 96% gainful employment within 3 months after completing the training programme. It can be concluded

that the formula used in conceptualising and executing the talent-development programme was an effective one and can serve as a model for future programme aimed at empowering unemployed graduates with the knowledge and skills necessary for successful employment. The findings suggest that collaboration, specifically between higher learning institutions and willing industry partners, is needed to address the supposed mismatch between the graduates universities produce and the employees the industry desires. A mechanism is definitely needed to ensure that the conversation continues between industry and higher learning institutions. Beyond this conversation, industry partners must be willing to invest time and effort in ensuring that fresh graduates are ready for the challenges of the workplace.

In relation to collaboration between university and industry partners, independent researchers should be included in future training programmes from the onset. This is necessary so that all key elements of the training programme, from conceptualisation right up to execution, are effectively captured. Conclusions drawn about the effectiveness of such training programmes can also be properly validated. Indeed, future studies on talent development programmes should focus on aspects of measurement and assessment to determine how improvements are defined and measured.

The fact remains however, that the programme supports the gainful employment of a significant majority of trainees. The development of the course content through collaboration between higher learning institutions and industry partners appears to have greatly contributed to the success of the training programme. This finding supports Kramer-Simpson's (2018) assertion that higher learning institutions should work towards establishing long-term relationships with industry partners and seeked the support of strong mentors for internship programmes. It is therefore recommended that the development of future training programmes and perhaps even existing university courses involve collaboration between higher learning institutions and industry partners so that graduates are better prepared for real world needs. References to the importance of the mentorship programme indicate the need for effective internship programmes for university students. Corporate organisations have to be more willing to accept undergraduates for internship programmes so that they are better equipped with the desired knowledge and the skill set.

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A Comparison of Customer Attendance Motivations at Victoria Park and Manning Farmers' Markets, Perth, Western Australia

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ABSTRACT

In March 2016, a survey of consumer attendance motivations was conducted at Victoria Park Farmers' Market, Perth, Western Australia. Whilst the main motivation, purchase of fresh produce, was the same as described in a number of previous studies, there were also differences. Accordingly, it was decided to conduct a further consumer survey, at a different farmers' market in the Perth area, to confirm or otherwise the Victoria Park findings. Manning Farmers' Market, at a distance of approximately three kilometres from Victoria Park was chosen. The survey was undertaken in May/June 2017. Results were very similar to Victoria Park, for instance around demographics and sociability concerns. Amongst the demographics the only statistically significant difference was in the greater number of attendees over 46 years at Manning Farmers' Market (though modal age group was the same at both markets). Attitudinally the only significant difference to emerge was greater concern for food safety at Manning Farmers' Market. Motivationally, Manning Farmers' Market customers gave a more positive ranking than Victoria Park Farmers' Market customers to purchasing fresh produce and purchasing packaged foods and a lower positive ranking than Victoria Park Farmers' Market customers to purchasing ready to eat foods and attending events/activities and concerts. This paper describes comparative outcomes between Victoria Park Farmers' Market and Manning Farmers' market in detail, assesses the research approaches and results for both, and contextualises them within global research on farmers' markets, through a framework of comparing outcomes at the two markets.

Keywords: Attendance motivations, attendee attitudes, farmers' markets, fresh produce

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INTRODUCTION

Farmers' markets are a physical coming together of buyers and sellers for retail farm products. Sometimes there are strong rules that the sellers are the actual farmers and growers who produced the items for sale. That might be true for some markets in Australia, where the Australian Farmers' Market Association has strict rules to that effect, but often there are other products and services, from knife-sharpening to having your child's face painted.

Farmers' Markets are increasingly popular. The US Department of Agriculture reported (USDA, 2014) 8268 farmers markets in America in 2014, an increase of 76% against 2008. The Department's estimate of total value of local food sales (to include farmers' markets but also other direct sales outlets, such as Community Supported Agriculture) as $6.1 Billion in 2012, when 163,675 farms (7.8% of US farms) were involved in such sales (Low et al., 2015).

This expansiveness is quite the antithesis of the general trend in face-to-face retailing, which has, in recent years, hit a number of issues in USA but also in other countries, for instance UK. Gough (2017) had reported that UK loses 15 retail shops per day and quotes 13.30% of shops as being currently empty. Dorman (2017) reported on Burslem, Stoke-on-Trent, the traditional centre of the UK pottery industry. He labelled Burslem "Britain's most stark ghost town". It has a shop vacancy rate of 31.5%, nearly one in three shops empty. There are also countless empty factories arising from the demise of the pottery industry.

For the USA, Thompson (2017) had reported "From rural strip-malls to Manhattan's avenues, it has been a disastrous two years for retail." Writing in April 2017, Thompson (2017) was already able to report nine major retail bankruptcies, as many as the whole of 2016, not to mention mass store closure programs from J. C. Penney, Radioshack, Macy's and Sears. Amongst the difficulties for face-to-face retailers, particularly those on the high street or main street, has been the rise of online sales. For instance, Amazon's North American sales rose from $16 Billion to $80Billion (Thompson, 2017).

Yet, the surge is not just to be associated with the game-changing disruptive innovators. Largely traditional bricks and mortar retailers are themselves fighting back with the internet, and with more than a measure of success. For instance, in UK, Sainsburys reported that online sales made up 18% of group total sales in their Third Quarter Trading Statement for the fifteen weeks to 7th January 2017 (J Sainsbury plc, 2017).

However, there is much research showing the veracity of a strong customer service offer in brick-and-mortar retailing, in customer loyalty and retention. The work of Yuen and Chan (2010) is particularly interesting in that the authors discovered that product quality did not exert a positive

influence on consumer loyalty, whereas the service environment assuredly did. Professional, helpful staff are a key, particularly through their problem-solving, and not only for loyalty of the customer they are interacting with, but, it is posited, in gaining referral sales through that client. Mehta et al. (2000) found the same in Japan.

Farmers' markets, with their strong face-to face service, where customers are even able to meet the grower of their produce or artisanal maker of prepared foodstuffs, are clear winners in the current retail landscape. Alkon and McCullen (2011) spoke of the motivation to consumers provided through connecting directly with the "hand that grows their food".

Australian farmers' markets have been little researched, the major exception being the work of Coster and Kennon (2005). The aims of this research were to make-up the broad knowledge deficit, gap fill, whilst providing the relevant market managers at Victoria Park and Manning Farmers' Markets with solid empirical evidence on which to base their future local decision-making. The market managers at both Victoria Park and Manning farmers' markets had never conducted any research on the market customers, so they lacked even basic demographic knowledge of who their customers were, let alone any knowledge as to their motivations or attitudes. There is arguably a problem of skilled market management in Australia, but also the problem of trying to future plan, when weighted by present success, the latter particularly true for Manning Farmers' Market. It is to be noted that this research focused on Western Australia, an area not covered by Coster and Kennon (2005) or any other researchers.

RESEARCH METHODOLOGY

The studies at both Victoria Park Farmers' Market and Manning Farmers' Market sought to understand why people attend the markets and their activities while attending this being undertaken through quantitative, questionnaire-based research, though also with a near-contemporaneous qualitative interviewing of participants about their experiences and motivations at the farmers' markets in sequential explanatory mode with the quantitative work (Creswell, 2009). The study's research questions collectively asked:

Whether and how various demographic variables, gender, age, educational level and income, influence reasons for attending each farmers' market.

Whether and how various attitudinal variables, for example concern for diet and health or concern to support local businesses, influence reasons for attending each farmers' market.

Whether and how various motivational variables, such as desire to purchase fresh produce or to meet people, have social interactions, influence reasons for attending each farmers' market.

The research questions derived from the variables set introduced with the study's conceptual framework. The conceptual framework was constructed out of the literature review and researcher

experience within the food industry. A general over-view came out of Spiller (2010). Gumirakiza et al. (2014) could lead away from inconsequential dead-ends, for instance in that their consideration of convenience variables (such as signposting, convenience for the road network) proved inconsequential as motivators to farmers' market attendance. Equally Gumirakiza et al. (2014) discovered significant relationships, offered a robust contribution, following Pascucci et al. (2011) to this study's conceptual framework and thereby offered solid cross-comparison with other recent studies. The researchers believe that all too often there has been spuriousness in making outcome comparisons, including for farmers' market attendance, to the extent that team research methodologies have been very different. That said, there was no sticking slavishly with the Gumirakiza et al. (2014) and Pascucci *et al* lines of research. The researchers were particularly concerned, for instance, to test the Alonso and O'Neill (2011) findings, community developmental in nature, around support of local agriculture and farmers. The researchers were also particularly concerned to question around food provenance in addition to food safety.

Out of this extensive cross-fertilisation came the conceptual framework in Figure 1.

The demographic variables became the studies' H1 hypothesis set, attitudinal variables the H2 hypothesis set, motivational variables the H3 hypothesis set. The H1 hypotheses, as a category, offered that there is a positive relationship between the range of demographic variables in the conceptual framework and reasons for attending the farmers' markets. H2 hypotheses suggested a positive relationship between the conceptual framework's attitudinal variables and reasons for attending. H3 hypotheses offered a positive relationship between the conceptual framework's motivational variables and reasons for attending.

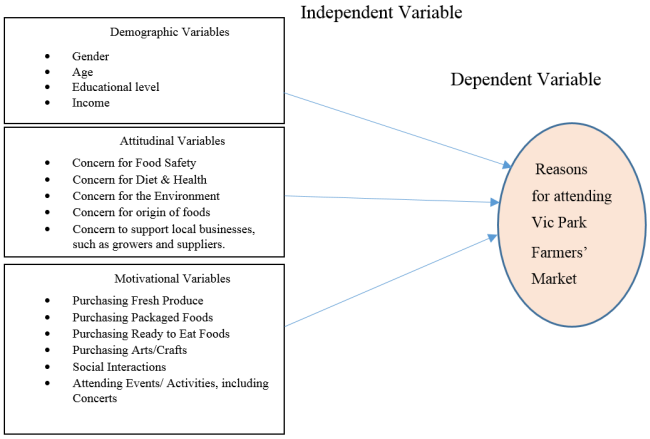

Figure 1. Conceptual framework

Testing of these hypotheses was by quantitative, questionnaire-based survey. Respondents were random sampled, from all adult attendees at both Manning and Victoria Park Farmers' Markets. A researcher or student helper cold-approached any attendee at the venue and supported those in agreement to complete a questionnaire toward that completion in-situ wherever they were on the field. Attendances by researcher and helpers were for two consecutive durations of each market, that is eight hours total on Sundays in the case of Victoria Park Farmers' Market and nine hours total on Saturdays in the case of Manning Farmers' markets A randomly selected sub-set at each market also acted as participants in a qualitative survey, to act as a possible cross-check on the quantitative elements, in sequential explanatory design (Creswell, 2009) where the qualitative elements are a follow-up designed to enhance, complement, maybe consider unexpected findings out of the quantitative work, but, perhaps, above all to ascertain whether the quantitative questionnaire missed questioning around some major issue.

Respondents in the quantitative survey were asked about their demographic profile (age, gender, income and others) and, also, about what they did and what they bought. Additionally, there were questions around respondents' attitudes concerning a range of relevant topics, such as concern for food safety, diet and health or concern to support local suppliers. The questionnaire was considered for validity by an academic expert, considering, mainly the statistical viewpoint and two members of Victoria Park Collective, Perth, Western Australia for local cultural appropriateness. Cronbach's statistical tool covered reliability (Cronbach, 1951). The outcome was a Cronbach Alpha measurement of 0.668 across the attitudinal variable items in the case of Manning and 0.766 in the case of Victoria Park, so a conclusion of reliability in both cases. For Victoria Park Farmers' Market there were 169 completed questionnaires and 8 spoiled. From Manning Farmers' Market there were 246 completed questionnaires and 45 spoiled.

The qualitative survey was through semi-structured interview with pre-determined, but open-ended questions. A blue sky spoken lead-in by interviewers cast participants' minds back and encouraged wide reflection. The idea was for the qualitative data itself to indicate the analytic structure, an inductive approach, with thematic content analysis being chosen as the specific method. At Manning Farmers' Market there were eight qualitative interviews and seven at Victoria Park Farmers' Market.

RESEARCH FINDINGS

Victoria Park Farmers' Market

Data collected in March 2016 was subjected to extensive descriptive and inferential statistical analysis, using the SPSS package and several statistical tools, namely independent sample t-test, one way analysis of variance and Pearson's product moment correlation.

The descriptive statistics run showed that women constituted the highest

percentage of attendees, at 60.6%. Modal age fell within the band 26-35 years of age. At 24.2%, the highest percentage of respondents fell within the income band of AUSD 55 – 89,999K per annum. On final level of education, the highest level of reporting was at 39.8%, for those holding a bachelor degree.

Additional questions were asked around size of the respondent's household, whether the primary shopper for the household and whether the respondent has a home garden. The mean household size was 2.75, so 3 people. 69.2% of respondents reported as the household's primary shopper, 48.8% that they have a home produce garden.

For the inferential statistics, accepting or rejecting hypotheses H1a to H3d was against a 0.05 significance level threshold. Results are in Table 1 below:

Inferential statistical testing continued by considering the H3 hypotheses in rank order from most to least important reasons for attending Victoria Park Farmers' Market. The summary is in Table 2.

Table 1

Summary of hypothesis test outcomes - Victoria Park farmers' market

Hypotheses	Accepted/Not Accepted	Statistical Tool Used
H1 Hypotheses Demographic		
H1a Gender	Not Accepted	Independent sample t-test
H1b Age	Partially Accepted*1	One way analysis of variance
H1c Educational Level	Partially Accepted*2	One way analysis of variance
H1d Income	Not Accepted	One way analysis of variance
H2 Hypotheses Attitudinal		
All Hypotheses	Accepted	Pearson's product moment correlation
H3 Hypotheses Motivational		
All Hypotheses	Accepted	Pearson's product moment correlation

*1 Age and ready to eat food were accepted. *2 Educational Level and ready to eat food were rejected.

Table 2

Mean and standard error - Motivational (H3) variables – Victoria Park farmers' market

Reasons	Mean± SE
Purchasing Fresh Produce	1.96 ± 0.100a
Purchasing Ready to Eat Foods	2.71 ± 0.117b
Social Interactions/Meeting People	3.23 ± 0.128c
Attending Events/Activities/Including Concerts	3.77 ± 0.120d
Purchasing Packaged Foods	4.64 ± 0.110e
Purchasing Arts and Crafts	4.67 ± 0.102e

The rank order was tested for statistical significance through one-way analysis of variance (ANOVA), locating significance as (α): 0.05 and substantiated through Duncan Multiple Range Test. Statistical significance was confirmed.

In respect of the Attitudinal (H2) variables, using Pearson's product moment correlation, a wide range of significant correlations was found:

There is a highly significant positive relationship between "I am concerned about food safety" and "Purchasing Fresh Produce" ($r = 0.237$, $p<0.01$).

There is a negative relationship between "I am concerned about food safety" and "social interaction/meeting people" ($r = -0.196$, $p<0.05$).

There is a highly significant positive relationship between "I am concerned about diet and health and "Purchasing Fresh Produce" ($r = 0.237$, $p<0.01$).

There is a highly significant positive relationship between "I am concerned about the environment and favour products with low environmental impact" and "Purchasing fresh produce" ($r = 0.209$, $p<0.01$).

There is a negative relationship between "I am concerned about the environment and favour products with low environmental impact" and "Purchasing ready to eat food" ($r = -0.178$, $p<0.05$).

There is a highly significant positive relationship between "I am concerned to know the origins of foodstuffs, their history, their grower, where grown, how grown, etc." and "Purchasing Fresh Produce" ($r = 0.248$, $p<0.01$).

There is a significant negative relationship between "I am concerned to know the origins of foodstuffs, their history, their grower, where grown, how grown, etc." and "Purchasing ready to eat food" ($r = -0.160$, $p<0.05$).

There is a significant positive relationship between "I am concerned to know the origins of foodstuffs, their history, their grower, where grown, how grown, etc." and "Purchasing Arts and Crafts" ($r = 0.161$, $p<0.05$).

There is a negative relationship between "I am concerned to support local business such as growers and suppliers" and "Attending events/Activities including concerts" ($r = -0.166$, $p<0.05$).

The demographic data was less significant (see above), in inferential terms, than that around the other variables. Age in relation only to ready to eat food was accepted, against, otherwise, rejection. Educational level and ready to eat food was rejected, against acceptance otherwise.

Manning Farmers' Market

Data collected on 27th May and 3rd June, 2017 was subjected to a wide range of descriptive and inferential analysis, using the SPSS package and various statistical tools, to include independent sample t-test, one way analysis of variance and Spearman's rank correlation co-efficient. The descriptive statistics showed that women constituted the highest percentage of attendees, at 64.2%. Modal age fell within the band 26-35 years of age. At 25.9%, the highest percentage of respondents fell within the income band of

AUSD 55,000 – 89,999 per annum. Final level of education saw the highest level of reporting, at 35.8%, for those holding a bachelor degree.

Questions were also asked around the size of the respondent's household, whether the primary shopper for the household and whether the respondent had a home garden. The mean household size was 3.01, so three people. 67.7% of respondents reported as the household's primary shopper and 54.2% that they had a home produce garden.

Accepting or rejecting hypotheses used a 0.05 significance level and the results are in Table 3 below:

Inferential statistical testing now considered the H3 hypotheses in rank order from most to least important determinant of attendance at Manning Farmers' Market. The summary is as per Table 4 below:

Table 3
Summary of hypothesis test outcomes – Manning farmers' market

Hypotheses	Accepted/Not Accepted	Statistical Tool Used
H1Hypotheses Demographic		
H1a Gender	Not Accepted	Independent sample t-test
H1b Age	Not Accepted	One way analysis of variance
H1c Educational Level	Not Accepted	One way analysis of variance
H1d Income	Partially Accepted*1	One way analysis of variance
H2Hypotheses Attitudinal		
H2a Food safety	Accepted	Spearman's rank correlation coefficient
H2b Environment	Not Accepted	Spearman's rank correlation coefficient
H2c Diet and health	Accepted	Spearman's rank correlation coefficient
H2d Origin of goods	Accepted	Spearman's rank correlation coefficient
H2e Support local business	Accepted	Spearman's rank correlation coefficient
H3 Hypotheses Motivational		
All Hypotheses	Accepted	Spearman's rank correlation coefficient

Table 4
Rank order of motivations for customers attending Manning farmers' market

Reasons	Mean ± SE
Purchasing Fresh Produce	1.33 ± .058
Purchasing Ready to Eat Foods	3.00 ± .091
Social Interactions/Meeting People	3.20 ± .102
Purchasing Packaged Foods	4.13 ± .094
Attending Events /Activities/Including Concerts	4.62 ± .094
Purchasing Arts and Crafts	4.66 ± .088

The rank order was tested for statistical significance through one-way analysis of variance (ANOVA), locating significance as (α): 0.05 and substantiated through Duncan Multiple Range Test. Statistical significance was affirmed.

The H2 Attitudinal variables were tested through Spearman's rank correlation coefficient. There is a significant positive correlation between purchasing fresh food and the concern about food safety, $r = 0.259$, $p<0.05$.

The concern about diet and health is also significantly positively correlated with purchasing fresh produce, $r = 0.313$, $p<0.05$.

Concern about the environment and favouring products with low environmental impact has no significant correlation with any of the reasons for visiting Manning Farmers' Market, $r = 0.029$, $p> 0.05$

Concern to know the origins of foodstuffs, their history, their grower, where grown and how grown is positively correlated with purchasing fresh produce, $r = 0.201$, $p< 0.05$.

Concern to support local business such as growers and suppliers is also significantly positively correlated with purchasing fresh produce, $r = 0.246$, $p< 0.05$.

The demographic data was less significant (see above), in inferential terms, than that concerning the other variables, with only partial acceptance of the hypotheses around income.

Manning and Victoria Park Farmers' Markets

Data from the Manning and Victoria Park Consumer Studies was now merged, to allow of valid comparison between the two sites. Simple descriptive comparisons were made for both sites, with a focus on demographics, as in Table 5 below:

Table 5

Victoria Park and Manning farmers' markets respondent demographics compared

Variables		Farmers' Market	
		Manning (%)	Victoria Park (%)
Gender	Male	72 (35.8)	63 (39.4)
	Female	129 (64.2)	97 (60.6)
Age	18 – 25	24 (12)	21 (13.1)
	26 – 35	57 (28.5)	55 (34.4)
	36 – 45	33 (16.5)	41 (25.6)
	46 - 55	41 (20.5)	16 (10)
	Over 55	45 (22.5)	27 (16.9)
Annual Income	Less than $30k	43 (21.8)	27 (17.8)
	$30k - $54,999k	35 (17.8)	26 (17.1)
	$55k - $89,999k	51 (25.9)	39 (25.7)
	$90k - $$129,999k	37 (18.8)	34 (22.4)
	$130+	31 (15.7)	26 (17.1)

Table 5 *(Continued)*

Variables		Farmers' Market	
		Manning (%)	Victoria Park (%)
Highest Level of Education	Year 11 or below	11 (5.5)	7 (4.4)
	Year 12 or equivalent	22 (11)	17 (10.6)
	Certificate III or IV	24 (12)	16 (10)
	Bachelor Degree	72 (36)	64 (40)
	Graduate Diploma	28 (14)	21 (13.1)
	Postgraduate	43 (21.5)	35 (21.9)
Are you the primary shopper	No	65 (32.3)	49 (30.8)
	Yes	136 (67.7)	110 (69.2)

Next the demographic data was subjected to inferential testing, using the chi-square statistical tool, the exception being number of people in the household, where independent sample t-test was used. Significance was located as (α): 0.05, with results as in Table 6:

Table 6

Summary of significantly different demographics between Manning and Victoria Park farmers' markets

	Significant Difference	No Significant Difference
Gender		
Age	✓*	
Income		✓
Education		✓
Primary Shopper		✓
Household Size		✓

* Whilst modal age group was the same for both markets, a significantly greater number of people aged 46 and above attended Manning Farmers' Market.

Motivational variables were considered between Manning and Victoria Park Farmers' Markets, using independent sample t-test, locating significance as (α): 0.05, with results as in Table 7:

Table 7

Summary of significantly different motivational variables between Manning and Victoria Park farmers' markets

	Significant Difference	No Significant Difference
Purchasing Fresh Produce	✓*	
Purchasing Ready to Eat Food	✓*	

Table 7 *(Continued)*

	Significant Difference	No Significant Difference
Purchasing Packaged Food	✓*	
Social Interactions/ Meeting People		✓
Attending Events / Activities, etc	✓*	
Purchasing Arts and Crafts		✓

* Manning Farmers' Market customers gave a more positive ranking than Victoria Park Farmers' Market customers to purchasing fresh produce and purchasing packaged foods. They gave a lower positive ranking than Victoria Park Farmers' Market customers to purchasing ready to eat foods and attending event/activities and concerts.

Finally, attitudinal variables were considered between Manning and Victoria Park Farmers' Markets, using chi-square testing, with significance located at (α): 0.05, with results as in Table 8:

Table 8

Summary of significantly different attitudinal variables between Manning and Victoria Park farmers' markets

	Significant Difference	No Significant Difference
Food Safety	✓*	
Diet and Health		✓
Environmental Concerns		✓
Origins of Foodstuffs		✓
Supporting Local Business		✓

*Manning Farmers' Market customers gave a significantly more positive ranking on food safety concerns than Victoria Park Farmers' Market Customers.

In respect of the attitudinal variables, a Cronbach reliability test was also conducted (Cronbach, 1951), as an indicator for analysis of the merged data from Victoria Park and Manning Farmer's Markets. The outcome was a Cronbach alpha of 0.731, indicating reliability.

The findings of the Victoria Park and Manning studies are quite similar. There are limited significant differences around demographic (age) and attitudinal (food safety) variables. There are more significant differences around motivational variables. Manning Farmers' Market customers gave a more positive reception to fresh produce than did Victoria Park customers. They also gave a more positive response to packaged foods, but a lower positive response to ready to eat foods. Manning customers, though, gave a lower positive rating to attending events/activities/concerts than did Victoria Park customers.

Relative to rank order of the motivational variables for Manning Farmers' Market, purchasing fresh produce is the strongest motivator to attend, followed by purchasing

ready to eat foods. Next comes social interactions/meeting people, followed by purchasing packaged goods. Attending events / activities/ including concerts comes next, with the least strong reason being purchasing arts and crafts.

Rank order of motivational variables at Victoria Park Farmers' Market is similar, but not exactly the same. At Victoria Park, fourth and fifth in the rank order were attending events/activities and concerts, followed by purchasing packaged foods. At Manning Farmers' Market the order was purchasing packaged foods fourth, followed by events, activities and concerts.

The complete rank order for the motivational variables at Manning was as per Table 9 below:

Table 9

Rank order of motivational variables at Manning farmers' market

	Mean ± SE
Purchasing Fresh Produce	1.33 ± 0.058[a]
Purchasing Ready to Eat Foods	3.00 ± 0.091[b]
Social Interactions / Meeting People	3.20 ± 0.102[b]
Purchasing Package Foods	4.13 ± 0.094[c]
Attending Events / Activities / Including Con.	4.62 ± 0.094[d]
Purchasing Arts and Crafts	4.66 ± 0.088[d]

This rank order was tested for statistical significance, through one-way analysis of variance, locating significance as (α): .05, and substantiated through Duncan Multiple Range Test. Statistical significance was affirmed

The complete rank order for the motivational variables at Victoria Park was as per Table 10 below:

Table 10

Rank order of motivational variables at Victoria Park farmers' market

Reasons	Mean± SE
Purchasing Fresh Produce	1.96±0.100[a]
Purchasing Ready to Eat Foods	2.71±0.117[b]
Social Interactions/Meeting People	3.23±0.128[c]
Attending Events/Activities/Including Con.	3.77±0.120[d]
Purchasing Packaged Foods	4.64±0.110[e]
Purchasing Arts and Crafts	4.67±0.102[e]

This rank order was tested for statistical significance, through one-way analysis of variance, locating significance as (α): .05, and substantiated through Duncan Multiple Range Test. Statistical significance was affirmed

Qualitative survey results on consumer attendance for Victoria Park and Manning were, in a sense, remarkably similar in that in neither case did grand themes emerge. Participants, seven interviewees at Victoria Park and eight at Manning Farmers' Market, almost without exception wished to talk about domestic issues of that location (which, in itself, might be regarded as a theme). For instance, at Victoria Park the need for more shade was mentioned frequently (43% of participants), while tables, chairs (62.5% of interviewees asked for more tables and chairs) and parking were topics brought frequently forward by Manning participants. By contrast, across both locations, only one participant wanted to get into detail discussion of prices and for Manning there was no discussion of market prices at all.

DISCUSSION

Extensive similarities have been shown between results from the Manning and Victoria Park Farmers' Market studies. In essence, the one confirms the other. Perhaps the most obvious statement of that lies in the rank order of the motivational variables.

An important question, however, is how much the results for Manning and Victoria Park confirmed, or otherwise, results from other studies of consumer behaviour at farmers' markets. Results are, then, very mixed, the clearest-cut similarity being in purchasing fresh produce as the primary motivational variable. Such was discovered by Coster and Kennon (2005) for elsewhere in Australia, but likewise by other researchers at a variety of venues in different countries. For example, Gumirakiza et al. (2014) found, in their study of Utah and Nevada farmers' markets that attending to buy fresh produce was the primary motivation, with that reported by 78% of respondents.

To look at another motivational variable, purchasing ready to eat foods, it is found that the high ranking at second for Manning and Victoria Park Farmers' Markets does not sustain across other studies. For instance Gumirakiza et al. (2014) found only 5% of respondents in Utah and Nevada offering purchase of ready to eat foods as a primary response.

Equally, the high priority given to social engagement at both Manning and Victoria Park also does not show in such studies as Gumirakiza et al. (2014) for Utah and Nevada. Indeed, speculation might lead to consideration of a connection between the findings on ready to eat foods and sociability, if the ready to eat foods are eaten at the market, for instance as breakfast.

In terms of attitudinal variables both the Victoria Park and Manning Farmers' Market Studies found strong correlations. An example was the correlations between concern for diet and health and attending to purchase fresh produce. Additional to this being a strong correlation in both

the Victoria Park and Manning surveys, Gumirakiza et al. (2014) found a similarly strong correlation in Utah and Nevada.

Comparing demographic results for Manning and Victoria Park Farmers' Markets with those from other studies shows varied outcomes. For example, rounded to full figures household size was the same, at three persons, for both Manning and Victoria Park and as reported by Gumirakiza et al. (2014) for Utah and Nevada, and Pascucci et al. (2011) for the Italian farmers' markets they surveyed.

Age, was though, very different for the various locations. The modal age range was reported as 26-35 years at both Manning and Victoria Park Farmers' Markets. For Utah and Nevada a mean respondent age of 42 years was reported (Gumirakiza et al., 2014). The Italian respondents were of average age 55 years (Pascucci et al., 2011). These differences can have substantial knock-on effects. For instance, Pascucci et al. (2011) suggested that, given the age of the parents, child attendances were not a dynamic at the Italian markets.

Overall, though, in Italy, farmers' markets are buoyant (Pascucci et al., 2011). They were, indeed given a major boost by the Finance Act 2007 (Pascucci et al., 2011), which mandated local authorities to take over their promotion.

Global buoyancy of farmers' markets, has been mentioned for USA, for instance, total annuals sales at farmers' markets having been estimated by US Department of Agriculture as at $1.5 Billion in 2015. Farmers' markets are similarly buoyant in, for example UK (McKeever, 2016). This is an important confirmation of the face-to-face retailing that is withering elsewhere. Hunt (2007) spoke of consumers interacting with both each other and vendors. 94% of his Maine respondents indicated not just enjoying social interaction but specifically talking with the farmers. Oberholtzer and Grow (2003) saw the impact of farmers' markets in terms of "making a place for social activity and promoting a sense of community" beyond simply provisioning local people and providing income to local businesses. Alonso and O'Neill (2011) found strong social motivations among consumers. Grando (2009) spoke of food buying becoming a pleasant and sociable activity.

In fact, farmers' markets are, of course, public space, social spaces, with a role in community development. Farmers' markets match the classic definition of a community institutional asset, as considered by Kretzmann and McKnight (1993) for asset-based approaches to community development. As such, Tiemann (2008) had spoken of their role as places of informal association, yet also with solid roles in community economic development, bringing footfall to rundown Central Business Districts or adding footfall in currently successful areas. This was remarked on by the Rotorua Daily (Martin, 2016) of a new farmers' market, started in October 2016. Local traders were clearly delighted by the footfall brought to the Centre on a Sunday, normally a slow trading day.

So successful is the farmers' market format that it has bred imitation by the supermarkets sector (McKeever, 2016). Amongst many examples McKeever (2016) instances Lidl, in UK, actually holding a pop-up farmers' market. It was stocked with Lidl's normal stock. What, though, it did not have was any farmers, people of passion, knowledge, experience, people who had got their hands dirty nurturing that produce, and, as ever had that story or two to tell. It is the interaction with these vendors that builds loyalty and trust and the willingness of consumers not just to buy, but also pay premium prices through their inclusion of experience elements (Pine & Gilmore, 1998) as a component in acceptable pricing, or, at the least highly attenuated views of service (Yuen & Chan, 2010). It seems that as social bonds develop, relationships build, information and knowledge is exchanged, premium pricing is supported, irrespective that classical economics recognises no social component in price determination, specifically that no social element is embedded (Granovetter, 1985) in a transaction. That the shortened supply chain represented by farmers' markets sustains high prices (eg. Pesch & Keeler, 2015) also negates the classical supply chain assumption that the shorter the supply chain, the lower the price to the end user, as middle-men are reduced.

A final note beyond commercial imitation of farmers' markets is that so important can their role in community development be that the format has been adopted and promoted by Government in, say, Italy (Pascucci et al., 2011). Local authorities have been given a specific remit to promote farmers' markets. In Wales, the Welsh Government (Business Wales, 2016) sees farmers' markets as an important contributor in the aim of growing the food and drink sector by 30% by 2020.

CONCLUSION

The broad conclusion of the comparative study of the Victoria Park and Manning Farmers' Markets consumer attendance motivations research is that the outcomes of the studies support each other. There are, of course, some minor differences, for instance in demographics and the rank order of motivations, but those compare with substantial differences between these two studies and many that went before them. The correlation testing between the Perth Farmers' Markets, so close together and with fairly similar demographics, from the researchers' knowledge of the area, was important to the farmers' market managers' confidence to believe in and have confidence to act from the results. Likewise, the researchers had a heightened confidence in Perth results, before moving on to Brisbane, the next area for research, the aim of the studies in Perth being toward inter-state comparisons of both farmers' market customer motivations and vendor motivations, toward filling the relative gap on Australian Farmers' Market research, whilst never forgetting an original aim of giving hard-pressed individual market managers the tools to manage, whilst, maybe, moving toward a generalisability

(such as illustrating the rise of sociability) that would help many more farmers' market managers and management committees in their decision-making.

The next need is undoubtedly for further testing of the studies' hypotheses in another or other locations, at a distance from Victoria Park and Manning, for instance in a different Australian State.

Such a further study or studies should:

- Abandon the rank order questioning, despite its recommendation by Gumirakiza *et al* (2014), in favour of singular use of Likert scale-based questioning. At Manning Farmers' Market, respondents were confused by the rank order questioning, illustrated by the high number of voids associated with that question.
- Consider the relationship between attendance motivations and pricing through additions to the questionnaire.
- Consider the relationship between the farmers' market and local community development, through questionnaire additions.

An observation on the last is that at the macro level there is a need to abandon speculation on the role of farmers' markets in community development in favour of quantification.

This paper is limited in terms of its geographical reach and timescale of observations. Insofar as the results reported on here are largely similar to those found elsewhere, it is believed that a reasonable degree of generalisability of the results may be claimed. This claim will be tested through additional future research.

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Does Self-Efficacy Always Trigger Entrepreneurial Intention?: An Exploratory Approach

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ABSTRACT

This research was designed to determine factors that influence entrepreneurial intentions (EI) of South Korean young generation. In particular, efforts have been made to distinguish the different impacts of general self-efficacy (SE) and entrepreneurial self-efficacy (ESE). For this purpose, a cross-sectional study was designed and 349 college students in South Korea were surveyed. Findings showed that high self-efficacy, unlike previous studies, could lower the entrepreneurial intentions. However, when it is mediated by creativity, it increases the youth's intention of starting a business, which suggests that it is necessary to investigate the diverse functions of self-efficacy when studying its impacts on entrepreneurial intention.

Keywords: Creativity, entrepreneurial intention, entrepreneurial self-efficacy, general self-efficacy

INTRODUCTION

Ever since Schumpeter in 1934 referred to entrepreneurship as the fundamental phenomenon of economic development (Phipps et al., 2015), many researchers and policy-makers have agreed that the primary driver for economic growth is entrepreneurship (Al-Harrasi et al., 2014; McMullan & Long, 1987). Entrepreneurship is the process of: (1) identifying new opportunities, and (2) committing actions and resources to exploit such opportunities (Uddin & Bose, 2012). These explain why entrepreneurship is often defined with words such as 'creative destruction', 'opportunity recognition', 'devoting effort', and 'acquisition of resources'.

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Following the academic focus on entrepreneurship, slow economic growth and low employment rate of college graduates have shed even more light on the topic. This is because one of the most ideal solutions to the current economic downfall is the younger generation's growth of entrepreneurial spirit as it generates new jobs and impetus for economic development. However, Harding and Bosman (2006) indicated that entrepreneurial activity was low among young people under 25 in most countries (Zampetakis et al., 2011). Thus, it is not only important, but also essential, to find factors which reinforce entrepreneurial behaviour in young people. To do so, it is important to be aware of the younger generation's current opinions of the entrepreneurship idea. Previous research has shown that entrepreneurial intention (EI) is one of the best predictors of one's engagement in entrepreneurship in the future (Krueger et al., 2000). Therefore, this study was designed to examine antecedents of EI in South Korea's college students.

Intention is the will of a person when exercising a certain behaviour (Fayolle & Gaily, 2009), while EI is the desire to start-up a business (Uddin & Bose, 2012) or create new core value in existing organisation (Khoung & An, 2016). On the basis of previous research, antecedents of EI can be categorised into two dimensions. First, individual characteristics such as personality, attitudes, prior experience, education, and human capital which affect an individual's EI. The other part consists of certain societal factors such as social norms and standards which can either enhance or restrain EI.

After analysing 31 previous research, Al-Harrasi et al. (2014) identified personality trait as the biggest influencer of EI. In addition, self-confidence, risk-taking personality, needs for achievement, autonomy, and internal locus of control were also found to be the underlying factors of EI. In particular, perceived feasibility or entrepreneurial self-efficacy (ESE) was found to be the largest factor in motivating the younger generation's EI, and it is a consistent trend shown in multiple nations such as Pakistan (Sajjad et al., 2012), Croatia (Susanj et al., 2015), China (Peng et al., 2012), Vietnam (Khuong & An, 2016), USA (Austin & Nauta, 2015; Shinnar et al., 2014; Winkler & Case, 2014), and Afghanistan (Bullough et al., 2013).

One notable factor, as pointed out in the social cognitive theory (Bandura, 1986, 2001), is that all of the previous research has approached the definition of self-efficacy (SE) as a task-specific ESE. Bandura had once explained SE as not a generalised trait, but as one's efficiency of completing particular task. However, we found it necessary to verify the distinct impacts of SE, along with ESE, while researching EI due to the following reasons. First, entrepreneurial activity offers a wide variety of challenges such as finding new opportunities, marketing, managing finances and employees and networking. This is different from working for an organisation, where the individual is only given a specific task to work on. Therefore, it is mandatory

to investigate the impact of SE from a wider scope. Second, entrepreneurship is not a mandatory, but rather a choice, out of the many options that the younger generation could consider as their future career. In other words, it is essential to test whether the trust for their general capability will lead to EI even when ESE has been controlled. It may be the case that general SE motivates the younger generation to choosing other options for their career. If, as social cognitive theory assumes, only task-specific ESE shows a direct impact, this will indicate the necessity of activating and investing in special programmes that will increase ESE specifically, such as entrepreneurial education, and support for entrepreneurial activities.

Additionally, creativity has been recognised as one of the main factors influencing EI, along with ESE (Hills et al., 1999; Mitchell et al., 2002; Zampetakis et al., 2011). This claim is based on the logic that creativity and EI have an intricate relationship as entrepreneurship occurs based on one's exploration of new opportunities and challenges. However, some previous studies argue that the opposite logic is true; it is SE that stimulates creativity (Ma et al., 2013; Zhou, 2003). Therefore, we would like to test such hypotheses on the relationship between (E) SE, creativity, and EI.

Hence, this article attempts at contributing to the academic field by being the first ever to contemplate the different influences of SE and ESE on stimulating EI. Furthermore, it hopes to provide pragmatic uses of instigating the construction of programmes and policies to motivate the younger generation to entrepreneurial activities.

LITERATURE REVIEW

Self-efficacy and Social Cognitive Theory

Social cognitive theory (Bandura, 1986, 2001) provides the foundation of explaining entrepreneurship as a learning process. Winkler and Case (2014) went on further to emphasise SE as a central key in entrepreneurial learning. Here, SE refers to one's belief in their capability of completing a specific task better than their target rate. SE can be strengthened through four different methods: (1) mastery experiences; (2) role modelling; (3) social persuasion; and (4) physiological states.

The relationship between ESE and EI is similar to the intricate relationship between SE and behavioural intention that many researches have proven based on social cognitive theory (Shinnar et al., 2014). In fact, the study of ESE and EI has a long history in academic research. One of the key studies in this field, Boyd and Vozikis (1994) explained that ESE not only positively influenced EI, which was a combination of rational and intuitive thinking, but also moderated the relationship between EI and entrepreneurial action. Since then, over the two decades, many studies have followed the footsteps and examined the relationship between ESE and EI (Chen et al., 1998; Zhao et al., 2005; Sequeira et al., 2007). For example, Chen et al. (1998) showed that students with high ESE score

showed strong intention to start a one's own business regardless of their major. Zhao et al. (2005) found that ESE also acted as a mediator between students' risk propensity and EI. Sequeira et al. (2007) showed that EI increases when ESE was coupled with a personal network of supportive ties.

As studies had proven a firm relationship between ESE and EI, many researchers looked into entrepreneurial courses as a precedence factor for increasing ESE. Furthermore, they started verifying the relationship between entrepreneurial education and its relationship with ESE/EI. Surprisingly, however, entrepreneurial education did not have a consistent impact on ESE and EI. Shinnar et al. (2014) commented on such results, saying that further study must be done on the complex characteristics of SE. Other previous studies examining the relationship between ESE and EI also advocated the need for a precise approach to ESE. Bullough et al. (2013) pointed out how ESE might vary according to situations and that individuals' different characteristics and situational factors must be taken into consideration. Austing and Nauta (2015) also argued that ESE did not act independently in the process of EI development.

Therefore, this study examined distinctive effects of SE and ESE on EI. Although there is no such necessity of suspecting the relation between ESE and EI, there is a lack of experiments proving the effect of SE when the future career path of entrepreneurship has not been decided yet. Thus, the attempt made by this research will testify whether entrepreneurial activities can be identified as a task-specific situation, or whether these should be considered as a larger approach that includes the concept of entrepreneurship along with many others.

Furthermore, Korea's youth unemployment rate of 9.8% in 2016 was the highest it has ever had in the past 10 years. In addition, applicants to public office positions increased rapidly from 105,000 (2011) to 164,000 (2016)[1]. Both these figures indicate how the youth is put in a social environment that keeps them anxious about the future. In such environment, this research holds more significance in that it will prove whether SE can work as a stimulant of EI, or has the exact opposite effect, by motivating the younger generation to choose career options other than entrepreneurship.

Creativity and Theory of Planned Behaviour

Ajzen's (1991) theory of planned behaviour (TPB) enlists three factors that impact behaviour as follows: (1) the attitude toward performing a behaviour which is affected by the expected results of that particular behaviour; (2) perceived social norms; and (3) individual control, which is defined as perceived ease to execute the behaviour (Khuong & An, 2016). Based on TPB, Krueger (2007) explained how EI was also decided by the degree to which an individual identified entrepreneurial activity to be possible (control), the desire to accomplish the activity (attitude), and the social atmosphere/reaction to entrepreneurial

1 Statistics Korea, http://kostat.go.kr

activities or social norms (Bullough et al., 2013).

Building on from the three factors of Krueger, Phipps et al. (2015) argued that creativity could be categorised as one of those factors; in particular individual's control. This is because creativity is a process of developing a new idea for solving a particular problem with a non-preexisting idea (Amabile, 1996; Zimmerer et al., 2008), and those with "high" creativity identify new opportunities, technology, and resources, etc. more frequently than those with "low" creativity. A lot of previous research has proven a positive relationship between creativity and EI (see for example, Feldman & Bolino, 2000; Sternberg, 2004; Yar Hamidi et al., 2008; Zampletakis et al., 2011). Originality and novelty is a critical part of entrepreneurship (Davidsson, 2002), making creativity an essential trait in increasing EI.

As such, (E) SE and creativity act as the main antecedents of EI. Similarly, previous research has also proven the intricate relationship between SE and creativity. Those with high degree of belief in their own capabilities tend to attempt at new patterns of behaviour (Stajkovic, 2006), and this is directly related to creativity. Ma et al. (2013) also indicated that a number of previous research had found a close relationship between SE and creativity in various organisational environments (Gong et al., 2009; Zhou, 2003). Similarly, Brockhaus (1980) also proved that people with higher SE would seek for new challenges, and new opportunities even in unstable environments (Khuong & An, 2016).

In relation to findings of previous research, this paper attempts to determine the relationship between EI and the variables in a more precise manner. Consequently, testifying how SE, ESE, and creativity can impact EI will enable provide a clearer picture of the overall structure between these variables, which will aid the development of a successful solution for increasing younger generation's EI.

METHOD

Participants and Procedure

For this research, three 4-year colleges containing at least ten-thousand students were randomly selected. Within the selected colleges, survey respondents were chosen from the business department as they are considered to have the highest degree of understanding of employment and entrepreneurial activities. All the surveys were done through direct contact. The interviewers were responsible for the explanation of the survey which was to reduce correspondence error. Once the respondents had a full understanding of the survey, they were requested to complete it and later sealed it in an envelope to be returned to the researchers anonymously.

In total, 349 respondents answered the survey, and all the results were used for the statistical analysis. Respondents' demographic background details are as follows: 57.9% (n=202) were males while 42.1% (n=147) were females. Age varied

from 18 to 28 (M=22, SD=2.88), while division of grades was freshmen (35.5%, n=124), sophomores (22.6%, n=79), juniors (26.4%, n=92), and seniors 15.5%, n=54). Furthermore, the question asking the respondents' experiences in working as part-time employees (e.g., intern, contract worker, permanent employee) received an answer of 23.5% (n=82).

Measures

All the variables, other than demographics, used Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

As all the variables, except for creativity, were recorded in English, an examination on whether it had been properly translated to Korean had to be done. This was done so through three methods: translations, reverse translations, and preliminary examination, as suggested by Brislin's (1970, 1980) guideline. Primarily, three business scholars, along with one English scholar, translated the original variables into Korean and compared the meaning with that of the original version. Although no discrepancy of definition was found after the translation, words with different connotations of expression were changed after a thorough discussion. After that, the surveys in both languages were given to a professional translator (who is fluent in both Korean and English) to compare the concepts and modify, if necessary. Furthermore, to make sure that there were no ambiguous terms that hindered the respondents' understanding, a pilot test was conducted with 20 college students using the modified translated copy of the survey. As a result, three questions with unclear expressions were edited. After a final examination of the translated version of the questions, the survey was completed.

For creativity measurement, Jeong's (2007) creativity measuring scale for college students was used. For entrepreneurial intention, the scale proposed by Yusof et al. (2007) was used, while Jones' (1986) survey questions were used for self-efficacy. Finally, entrepreneurial self-efficacy, defined as the degree of confidence and belief that one has on their entrepreneurial ability, was measured with the questionnaire developed by Wilson et al. (2007). Control variables for the survey were the demographic variables (1 = male, 0 = female), and age. In addition, the respondents' previous work experience (1 = previous experience, 0 = no previous experience) was used, acknowledging its relation to this research.

RESULTS

Statics tool SPSS 18.0 was used for analysing the data. First, varimax rotation and exploratory factor analysis were carried out to test the validity of the survey. The factor loadings of all the items ranged from 0.518 to 0.866, and the total item variance explained was 57.93%. As such, findings indicated a result of at least 0.5 for each factor loading, showing a high validity for the construct variables.

Next, Cronbach's alpha test was conducted to test the degree of reliability. Results showed the following: creativity 0.863 (9 questions), entrepreneurial intention 0.913 (4 questions), entrepreneurial self-

efficacy 0.800 (6 questions), and self-efficacy 0.844 (6 questions). As the value of Cronbach's alpha coefficients in all of the variables exceeds 0.70, reliability of the survey is therefore validated.

Table 1 shows results of the correlation analysis. As indicated by the results, all the variables (excluding the control variable) showed a positive relationship (r = 0.142 - 0.486, p < 0.01).

We conducted a hierarchical multiple regression analysis to analyse the aforementioned questions. Multicollinearity measurement was necessary as the survey used multiple regression analysis for more than two independent variables. In addition, variance inflation factor (VIF) was utilised to make sure there was no issue in the calculation process. As VIF (Table 2) was less than 10, there seemed to be no issue in multicollinearity (Chatterjee & Hadi, 2006).

Table 1

Descriptive statistics and correlations

	1	2	3	4	5	6	7	8
1 Gender								
2 Age	0.100---							
3 Grade	-0.016--	0.532***						
4 WE[1)]	-0.064--	-0.126*-	0.153**-					
5 SE[2)]	0.035---	0.065---	0.043---	0.014---				
6 ESE[3)]	0.110*--	0.050---	0.034---	-0.083--	0.464***			
7 Creativity	0.206***	0.034---	0.039---	-0.072--	0.340***	0.416***		
8 EI[4)]	0.215***	0.056---	-0.002--	0.165**-	0.142**-	0.486***	0.381***	
M		22.00---	2.22---	---	3.04---	3.61---	3.52---	2.66---
SD		2.89---	1.10---	--	0.65---	0.62---	0.68---	1.05---

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

1) Work experience, 2) Self-efficacy, 3) Entrepreneurial self-efficacy, 4) Entrepreneurial intention

There are four models of regression analysis for analysing the survey responses. Model 1 tested the impact that SE had on EI, while Model 2 tested the same thing, but in a condition where ESE was controlled. Model 3 tested the impact that SE and ESE had on creativity, while Model 4 tested on the mediator effect of creativity between (E) SE and EI.

As indicated by the figures presented in Table 2, in model 1, SE had a positive impact on EI (β=0.139, p<0.01). Next, in Model 2, ESE had a positive impact on EI (β=0.520, p<0.001) while SE showed a negative impact (β=-0.115, p<0.05) which is the opposite of Model 1. In Model 3, both SE (β=0.183, p<0.01) and ESE (β=0.306, p<0.001) showed a positive impact on creativity.

Table 2

Hierarchical multiple regression analysis results

	Model 1	Model 2	Model 3	Model 4	
	EI[4)]	EI	Creativity	EI	VIF
Gender	0.196***	0.160**-	0.168**-	0.125**-	1.068
Age	0.041----	0.040---	-0.034---	0.047---	1.420
Grade	-0.055----	-0.065---	0.041---	-0.073---	1.420
WE[1)]	-0.168**--	-0.110*--	-0.023---	-0.105*--	1.054
SE[2)]	0.139**--	-0.115*--	0.183**-	-0.154**-	1.373
ESE[3)]		0.520***	0.306***	0.455***	1.473
Creativity				0.213***	1.292
R^2	0.096---	0.296---	0.226---	0.331---	
R^2		0.200***		0.035***	
F	7.051***	23.227***	16.184***	23.358***	

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

1) Work experience, 2) Self-efficacy, 3) Entrepreneurial self-efficacy, 4) Entrepreneurial intention

Baron and Kenny (1986) mentioned the following conditions in testifying the effects of mediating variables. First, the independent variable must influence the mediating variable. Second, independent variable must impact the dependent variable. Third, mediators must have influence on the dependent variable, while the independent variables are controlled. Fourth, if the impact that the independent variable has on the dependent variable in the regression (including mediator variable) is smaller than the direct impact that independent variable has on the dependent variable, it is safe to conclude that there is a complete mediating effect. Model 4 was suggested under such circumstances; putting creativity as a mediating factor, the significance of both SE (β=-0.154, p<0.05) and ESE (β=0.455, p<0.001) remained low, which indicated a partial mediating effect. In conclusion, both SE and ESE have high relation to creativity in the process of impacting EI.

Next, Sobel Test was conducted to testify the mediating effect. Results indicated that creativity significantly mediates the relationship between SE and EI (Z=2.58, p<0.01), as well as ESE and EI (Z=3.31, p<0.001). As such, it can be concluded that creativity contains high mediating effect.

DISCUSSION

For a better grasp of the various factors that influence the young generation's EI, this research investigated the distinct impacts that SE and ESE respectively had on the EI of Korea's younger generation. In particular, the relationships between EI and independent variables were tested by using creativity as a mediating factor.

In previous studies, ESE was emphasised as the main factor that drives EI, and its correlation to entrepreneurial activities had been proven to be high (Markmanet al., 2002). The results of this research showed

similar outcomes, i.e. SE does in fact influence one's willingness to participate in entrepreneurial activities. However, in cases where ESE was controlled, the influence of general SE on EI was found to be negative, while only ESE had a positive impact. Such outcome can be proven by TBP's first leading dimension, i.e. attitude. The theory explains how an individual is more likely to carry out an activity that is perceived to bring the greatest amount of benefits. As such, when SE is high, one may think that choosing a different path for the career such as getting a job or pursuing additional degree, will be more beneficial than opening up a business.

The aforementioned results of this research hold both significant theoretical and social implications. First, theoretically, previous studies have shown how those with high SE have comparatively high EI than those of normal SE rate (Baum & Locke, 2004). However, this study showed how SE can have a negative role in cases where ESE was also considered. Though there were previous studies which investigated the multidimensional nature of ESE (Mueller & Goic, 2003; McGee et al., 2009), we made an additional contribution by taking into account differences between general SE and entrepreneurial SE. Hence, this research reveals the importance of testing both SE and ESE separately in trying to find out the precise factors that influence EI.

Second, the fact that young people with high general SE tend to seek for other options than starting a new business shows that the young generations are in need of a positive perspective on entrepreneurial activities through more exposure to success stories on entrepreneurship. Such social efforts to retain positivity on entrepreneurial activities can potentially increase the level of intention that the younger generation hold about getting involved in entrepreneurial activities.

Third, this study reaffirmed the importance of creativity in entrepreneurial process. Maslow (1977) categorised the type of creativity including creative problem solving ability and secondary creativity (rational and logical) which skilful individuals showed. Kirton (1976) also mentioned ideas about creativity from the perspective of an innovator. He mentioned how innovators attempted to restructure the problem by approaching it from a new perspective, liberating them from previous assumptions and customary ideas. These indicate that future entrepreneurship education should be aimed at increasing creativity of candidates.

Lastly, though this research holds both theoretical and realistic significance, further research on the following is needed. First, it is important to acknowledge that the unique Korean social background may have impacted the results to be different from the kind of conclusions that would be deduced with college students from a different nation. Hence, for the conclusion to have a higher validity, the same research should be conducted on students of various nations. Furthermore, those who are also preparing for the society without enrolling in college education should also be considered in future studies.

CONCLUSION

Since 2012, the economic growth rate of Korea has remained at 2-3 percent, while

its economic conditions have continuously been deteriorating. In order to solve these problems, the government introduced a new economic strategy that combines creativity and information and communication technologies (ICT) to create new industries, markets, and jobs. However, policies do not suffice to open and develop an innovative start-up climate. In the end, there is a need to spread the perception among young people that successful entrepreneurship can be an important asset in life. This study has shown the distinctive effects of SE and ESE which guide the elements to be considered in educating and developing entrepreneurial talent.

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Impact of Product Costing for Branding and Business Support on Small and Medium Enterprises in Malaysia

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ABSTRACT

This study examines the relationship between costing towards branding and business support on Small and Medium Enterprises (SMEs) of food and beverages (F&B) products supplying a hypermarket in Malaysia. Specifically, this study examines the mediating effect of branding on the relationship between products' costing and SMEs' product value. This study also examines the moderating effect of business support on the relationship of products' costing to branding. This study used a quantitative method by distributing questionnaires to SMEs with an F&B background. Four hundred questionnaires were collected from the SMEs. A theory, like transaction cost and the resource-based view, was applied to support the proposed five relationships and hypotheses. This study used partial least squares structural equation modelling (PLS-SEM). The results of this study show that cost is significant with mass-produced SMEs' product value. The result reveals a strong interaction of mediation in the implementation of branding for the SMEs' product value. In brief, business support acting as a moderator has no moderating effect on branding. Therefore, SMEs need to put aside a significant sum of funds to enhance their products' branding. This can help SMEs in manufacturing products according to the demands of consumers and the hypermarket. These actions can increase SMEs' income and contribute to national economic growth.

Keywords: Cost, food and beverage product, small and medium enterprises

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INTRODUCTION

In the modern urban lifestyle, consumers prefer an assortment of merchandise, including convenient foods and beverages (F&B). This ultimately creates loyalty for the products. Currently, due to the excessive cost of living, some consumers opt for cheaper products; however, at the same time, high-value products are important to consumers, as this ensures customers' satisfaction. Values are considered an influence of the determinants behavioural intentions towards gratification. It has been important to manufacturers, whose task is to embrace the responsibility to produce goods valued evenly; they spend money to understand and influence the consumer (Puccinelli et al., 2009; Vermeir & Verbeke, 2008). Since there are varieties of food and beverage products in the market, suppliers or manufacturers of these products need to strengthen their marketing strategies to attract consumers.

Even if a new consumer does not notice the products' brand at first, positive word-of-mouth from other consumers might influence their purchasing decision. Therefore, branding can influence consumers' purchasing decision and loyalty towards the product value, as a product's success leads from a good brand name (Kholi & Thakor, 1997). To sum up, SMEs products need to have good branding to attract consumers; therefore, companies should strongly establish their brand names. This incurs input costs to the F&B manufacturer.

Although 97% of business establishments in Malaysia consist of SMEs, most F&B SMEs in Malaysia remain micro-sized. They were the second-highest concentrated sub-sector in the manufacturing sector, where 54% comes from the micro size, followed by 38% and 8%, respectively, for the small and medium category (SMIDEC, 2014). This is because SMEs have average sales and smaller market shares owing to limited funding. Thus, SMEs are unable to conduct research and development, marketing, promotion, attractive packaging, etc. SMEs often face insufficient funding and limited capital; hence, they usually sell their products close to their premises. To reach consumers outside of their area, they incur higher transportation costs. A study conducted by Nikhashemi et al. (2014) mentioned that one way to increase the sales of SMEs F&B products was to secure a larger market share, which would further improve their profitability. The easiest way to access a larger market share is through distribution channels like hypermarkets. Hypermarkets have large numbers of consumers from the wide range of consumer goods offered. Therefore, consumers prefer to shop at hypermarkets.

Some SMEs manage to supply their products to hypermarkets; however, it is still uncertain that their products will sell, as consumers may prefer imported brands. The consumers are also inspired by social trends rather than the physiological utility of a given product (Wang et al., 2004). Branding represents the core marketing practices that constitute patent, trademark, existing reputable name, symbol, and logo names to

support specific products and the company (Kohli, 1997; Nyadzayo et al., 2015). Hence, it is important to consider the role of a brand name because strong branding influences consumers' thoughts, further enhancing SMEs sales in the long run. Therefore, SMEs should strengthen their brand through proper strategies and practices, and, more importantly, by managing the cost of mass-market distribution.

Additionally, SMEs in Malaysia are important to economic growth, playing an active role through the rapid growth of the food and beverage industry. This is because SMEs F&B is the second largest sub-sector of SMEs in Malaysia. Government ministries and agencies have also given impetus to SMEs involved in the food manufacturing business. To ensure that the F&B industry continues to contribute to the Malaysian economy, support from the government, microfinance institutions, agencies, and others are needed for SMEs' sustainability.

This showed that with the existence of business support could help the SMEs sustain their business in the long term. Furthermore, this could enhance SMEs product to go to a global level. Apart from financial support, non-financial supports such as business advisors are also essential to motivate the SMEs to keep on track their businesses. Literally, a function of business support as same as a support system where it supposedly enhances firm business performance (Kurniawati & Yuliando, 2015).

Therefore, this study aims to examine SMEs' ability to supply their products to distribution channels and to attract consumers in a larger market. In addition, this study measures the gap between costing, branding, and SMEs' product value to hypermarkets. Furthermore, this study investigates the role of the business support in the branding of SMEs product value to access a larger market or distribution channel like the hypermarket.

THE PROPOSED CONCEPTUAL MODEL

There are many businesses operating under the SMEs category in Malaysia. This causes resource gaps and competitive pressure among SMEs. The limitation of SMEs is when costing towards branding consequently make SMEs encounter problems creating value for a product, further affecting interest among consumers and distribution channels of their F&B products. SMEs need to spend more for these branding activities within the marketing program of businesses. Thus, branding mediates the relationship between cost and product value.

Additionally, SMEs align their transaction costs so that they can pursue multiple goals. SMEs often assign different goals for different organisational units. These various goals can lead to a complicated decision about whether to make, buy, or use allies (Miles, 2012). Transaction cost theory examines all extra costs involved, rather than just costs related to the production of goods and services. These costs include production costs, transaction costs and costs of an organisation. SMEs usually have only

been operating their business for a brief period. Therefore, they gain less benefits from the economy. They often have limited capacity for expertise acquisition.

Thus, the measurement composite effect applicable for SMEs in the role of both buyer and supplier will incur higher transaction costs. This directly leads to higher costs transactions when applying their resources, like branding. In the latter case, the higher costs are always reflected to SMEs (Nooteboom, 1993). A resource is defined as anything that could be thought of as strength for an organisation (Wernerfelt, 1984). Thus, branding is an important category of resources and is also seen as SMEs' performance strength (Miles, 2012). A principal of resourced based theory defines a unique bundle of assets, resources, or capabilities that, if a company utilises it in distinctive ways, can produce a competitive benefit (Kamyabi & Devi, 2011). Utilising these resources to some extent improves every SMEs vision, mission strategies, and goals. This may result in SMEs' business performance enhancement based on the differences of users' resource.

A resource like branding always requires financing (Abor et al., 2014). Scholars have proven that SMEs are unaware of business support (Bennett & Robson, 1999; Fitchew & Blackburn, 1998; Mole, 2002). Thus, it shows that business support is expected to moderate the relationship between costing and branding. Hence, this research enhances and tests a theoretical model related to SMEs' F&B product value. Guided by resources-based theory and transaction cost theory, the proposed theoretical model is shown in Figure 1. The research model is adapted from previous studies (Backhaus et al., 2011; Harash et al., 2014; Mohammadjafari et al., 2011; Nyadzayo et al., 2015; Sahin & Kitapci, 2013). The following sections entail the discussion of the development of hypotheses that will be tested in this study.

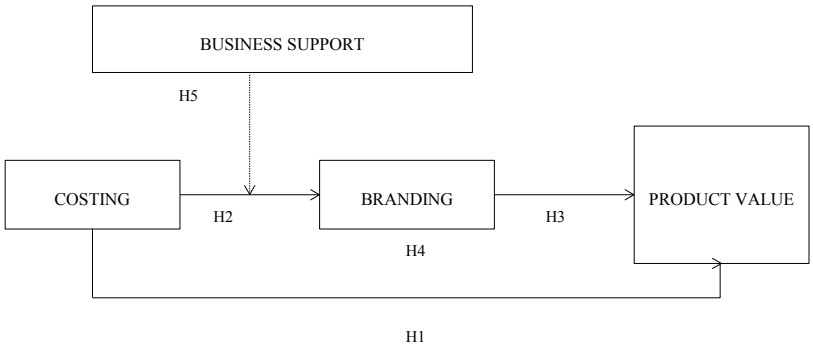

Figure 1. Theoretical framework

The Relationship between Costing and Product Value

It is costly to consistently retain or persuade consumers (Sahin & Kitapci, 2013). Cost is everywhere, from the beginning of the manufacturing stage, when purchasing raw material, until the finished product. SMEs frequently encounter problems related to costs from rising competition, threats from large firms, new SMEs' entrance, and substitute products in the market. They are small, with limited capital, financing, limited production sites, and have a lack of skilled labour and operational business equipment. Conversely, if SMEs spend a lot in high product costs, they will produce a high-value product to consumers. Furthermore, this relatively affects the high price if a high-cost product is implemented (Alban et al., 2015; Nooteboon, 1993; Sahin & Kitapci, 2013). Thus, it is hypothesised that:

H1: Costing is positively related to product value.

The Relationship between Costing and Branding

Previous researchers have mentioned that a strong brand is the most valuable intangible asset for any company (Chakraborty et al., 2013). Krake (2005) asserted that a large amount of money was needed for marketing. Marketing encompasses branding to build the awareness and promote the brand of their company. This is a core concern for large numbers of SMEs establishments in Malaysia. However, SMEs face major challenges concerning operation and growth, affected as they are by limited capital. Thus, they have low turnover, and some only focus on survival. To fully utilise their limited capital for product costs, SMEs are less concerned about branding. They just ignore the importance of a brand name, which could affect their product and consequently cease their business operation. However, if SMEs are concerned with improving their business performance, they will spend more money to develop their branding (Kamyabi & Devi, 2011; Krake, 2005; Pergelova & Angulo-Ruiz, 2014). As a result, SMEs' success in establishing their branding will further affect the added value of their products. This would appeal to consumers or distribution channels, to buy their product and increase SMEs' performance. Thus, it is hypothesised that:

H2: Costing is positively related to branding.

The Relationship between Branding and Product Value

A strong brand name can lead to an increase in companies' competitive strength (Spence & Essoussi, 2010). Consumers are attracted to or influenced to buy products that have established brand names because they believe the products have value added to them; consumers do not even mind a high price if that product has a well-established brand. Thus, when SMEs have strong brand names for their products, customer purchasing behaviour is likely influenced. This is suggested in studies done by Abimbola (2001) and Yee et al. (2011), where they found that products with good brand names were reflected in higher perceived value and higher prices. Thus, it is hypothesised that:

H3: Branding is positively related to product value.

The Mediating Effects of Branding

Establishing a strong brand creates value for both SMEs and consumer, as mentioned previously; a successful brand will have a long lifespan. For instance, strong brand names increase product values and can influence consumers more by positive word-of-mouth, enhancing SMEs' positive image. Certainly, strong brands represent an excellent future investment (Kohli, 1997). Even though the price of the product is higher, with good branding activities like knowledge of marketing skills, this higher price would be accepted by consumers. Hence, SMEs that have a strong brand will influence consumers to purchase their products. They will realise that products with good brand names will have high value even at a high price (Chakraborty et al. 2013; Pergelova & Angulo-Ruiz, 2014; Sahin & Kitapci, 2013). Thus, this hypothesis is proposed:

H4: Branding mediates the relationship between costing and product value.

The Moderating Effects of the Business Support

The creation of high brand awareness is always significant to a company's budget. It usually comes down to spending more on costs to develop a good brand. Nevertheless, with the assistance of support, SMEs can focus on decision-making for improving their brands. In addition, the business support will assist SMEs in upgrading skills and knowledge in their product marketing. This, coupled with a series of incentives, schemes, and support systems, moderates the SMEs in building a good strong brand and nurturing successful SME products value, further increasing the profits of SMEs. Thus, receiving this assistance will enable SMEs to perform better regarding their products' brands. For instance, through financial support, SMEs might be able to hire brand consultants. However, SMEs also can obtain non-financial support from governmental or related agencies to promote their products' brand to be more marketable (Krake, 2005; Pergelova & Angulo-Ruiz, 2014; Runyan et al., 2007; Spence & Essoussi, 2010). Hence, it can be hypothesised that:

H5: Business support moderates the relationship between costing and branding.

METHODOLOGY

This study used a quantitative method by distributing questionnaires to SMEs from an F&B background. Currently, SMEs manufacturing F&B have a products to a total population of 6,016 business establishments (SMIDEC, 2014). Hence, the required sample is at n = 362, referring to Krejcie and Morgan (1970). This is also supported by the G-Power Sample Size calculator (Raosoft.com., 2004) that recommended only 362 for the sample size of this study. To ensure precise results of the data findings, 400 questionnaires were collected from the SMEs. Hence, the target population of this study emphasises owners or managers of the SMEs in the F&B manufacturing sector. The sampling method

used in this study was non-probability sampling, because the sample size was selected through the availability and ease of access to the SMEs. The authors visited and conducted formalised interviews to distribute the questionnaires. SMEs were also chosen from the main events held in every state in Malaysia. Most SMEs hosting the events are the manager or are highly position in their company. So, the questionnaires were distributed and answered.

The questionnaire is divided into three parts: Section A identifies the profile of SMEs (demographic, type of products, business information, and hypermarket placement); Section B determines the measurement of costing, branding, and product placement in the hypermarket; and Section C assesses the business assistance of SMEs. Sections B and C used a five-point Likert scale ranging from 1-5 (1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree).

This study used partial least squares structural equation modelling (PLS-SEM). PLS-SEM is best suited for theory development and illustration using a framework. It also works in this study when exploring new theories by incorporating other theories or concepts into the model or having a soft theory (Resource Based View Theory & Transaction Cost theory). Essentially, PLS-SEM path models were defined using a two-step process: 1) assessment of the measurement model 2) assessment of the structural model. The measurement model concept assesses the relationship between indicators and a latent variable. The measurement model in this study was reflective. Thus, the important criteria to test the right measurement were validity and reliability. Byrne (2013) and Hair et al. (2014) said that factor loading values above 0.6 were at least acceptable, if the summation of loadings results in high loading scores, contributing Average Variance Extracted (AVE) scores of above 0.5 and the Composite Reliability (CR) above 0.7. Meanwhile, the structural model concept estimates the coefficient maximising the R^2 values of the target endogenous constructs.

Based on the proposed theoretical framework, branding is the mediating element of effective marketing that enhances the growth and performance of SMEs, while business support is the moderating element that represents the support system for developing SMEs. This assistance is

Table 1

SME products in hypermarket

Variables (s)	Frequency	Percentage (%)
Yes	151	37.8
No	195	48.8
In Process	39	9.8
Others	15	3.8
Total	*400*	*100*

divided into two types: financial support and non-financial support. The financial support is measured in the form of monetary funds, while non-financial support is measured in the form of business advisory services.

RESULTS AND DISCUSSION

The results of SMEs' product placement in the hypermarket are presented in Table 1. Out of 400 respondents, there were about 195 respondents (48.8%) who did not supply hypermarkets and only 151 respondents (37.8%) supplied hypermarkets. Meanwhile, about 39 respondents (9.8%) are in the process of supplying hypermarkets and 15 respondents (3.8%) answered 'others'. This means SME products in the hypermarket still occupy less shelf-space, thus making it more difficult for SMEs to access a larger market and increase the performance of their F&B products.

Assessment of the Measurement Model

Table 2 shows the scores obtained from the analysis of the measurement model. Based on Table 2, all composite reliability values are larger than 0.7, demonstrating elevated levels of internal consistency reliability. The composite reliability value for costing

Table 2

Results summary for reflective constructs

Construct	Items	Loadings	CR	AVE
Costing				
C1Q5	Transaction costs include costs of transporting product(s) in production sales	0.652	0.841	0.515
C1Q6	The company involve policy and enforcement cost after successful sales been made	0.660		
C1Q7	The company have a specialized in producing the product(s)	0.755		
C1Q8	The cost company inclusive different activities and levels	0.771		
C1Q9	The cost of organization covers the cost labor and capital	0.741		
Branding				
C3Q1	The company make a focal point for brand management	0.702	0.896	0.519
C3Q3	The product has a strong image compare to other products	0.733		
C3Q4	The publicity of the brand is effective	0.668		
C3Q5	The product brand equivalent the choice of branded/establish product	0.753		
C3Q6	The consumer consider your product(s) as brand preference	0.740		

Table 2 *(Continued)*

Construct	Items	Loadings	CR	AVE
C3Q9	The product has the perceived quality as the establish brand product	0.699		
C3Q10	The product meets the consumer's expectations	0.725		
C3Q11	The product has direct impact on consumer purchase intention and brand loyalty	0.741		
Product value				
C4Q1	The product issued have a good value	0.737	0.901	0.603
C4Q2	The product is good value of money for consumer	0.802		
C4Q3	The product is worth to buy other product	0.814		
C4Q4	Product sold at a price in line with the cost of product	0.765		
C4Q5	The price shown on product is acceptable for public	0.798		
C4Q6	The price of the product is economical compare other product	0.738		

Note. CR: composite reliability, AVE: average variance extracted

is 0.841, branding is 0.896, and product value is 0.901. These results indicate that the items used to represent the constructs have satisfactory internal consistency reliability. Indicator reliability shows a value less than 0.50 will be removed from the measurement model to improve the assessment of convergent and discriminant validity, as shown in Table 2. The pre-test result has prompted the deletion of a few indicators with low factor loadings of less than 0.50. These indicators are C1Q1, C1Q2, C1Q3, C1Q4 (indicators of costing), and C3Q2, C3Q7, C3Q8 (indicators of branding). Additionally, the convergent validity of costing is 0.515, branding is 0.519, and product value is 0.603, which exceeded the recommended threshold value of 0.5. These results shown in Table 2 indicate that the study's measurement model has demonstrated adequate convergent validity.

Assessment of the Structural Model

Figure 2 and Table 3 reveal all hypothesised relationships at the level of 95% confidence interval with p-values less than 0.05. First, H1 states that costing has a positive effect on product value. The findings revealed that products' costing is positive and significantly related to SMEs product value ($\beta = 0.126$, p-value = 0.007). Thus, this hypothesis is supported by this study. This suggests that provision for products' cost will affect product value. If SMEs only reserve a small budget for products' cost, they will

produce the low-value F&B product. On the other hand, SMEs with a large budget for products' cost will manage to produce high-value F&B products. When SMEs buy in small quantities, they cannot get bulk prices for raw material, which is cheaper and can reduce production costs. Thus, with the limited cost they manage to produce an average-value product where most of the time the selling price is higher than the product value. Therefore, SMEs need to have a good strategy for getting the low input of cost to produce a product of good value at a lower price that is ready to be acquired by consumers. This can be done with a strategy through manufacturing cost like logistics, rent, overhead, marketing, labour, and more (Hasnan et al., 2014). A strategy suggested by Berman (2012) also proved that these SMEs might reduce costs through changing the quality of interchangeable parts, minimising inventory levels, using contract employees, and selling through warehouse clubs. This can be implemented if SMEs can find raw materials at a lower cost, helping reduce manufacturing costs. Despite that, SMEs can start their business with low rental costs and lower inventory holding costs. Some suggested being part of a low-cost manufacturer, who outsource their workers to outsiders. However, a beginner entry SMEs can reduce labour costs by hiring a part-time worker only in peak seasons to assist peak production for limited operational hours only.

Second, H2 states that the costing is positively related to branding. The hypothesis indicates that SMEs reserving high cost will lead to a strong brand name. The findings revealed that products' costing is positively and significantly related to branding ($\beta = 0.429$, p-value = 0.000). Thus, hypothesis H2 is supported in this study. However, most SMEs are doing business under budget constraints; hence, they have low budgets for products' cost, which leads to low product branding. This happens because some SMEs simply ignore the importance of branding as a tool in marketing programs. It is true that adopting a brand is costly, and, with fewer resources, a company could build their desired image using a standardised and non-meaningful name (Kohli et al., 2005). Hence, SMEs cannot just ignore the importance of branding in their marketing programs for targeted consumers. Some SMEs work with a brand consultant to build trustworthiness for customers. They certainly restrict the marketing creativity level, and need more cost to build a strong brand name (Huang & Lai, 2011).

Thus, SMEs take an alternative by spending more on advertising, another part of marketing. This may enhance the awareness of the SMEs' brand. However, too many SMEs are seduced by advertising consultancies. Some SMEs may have an elevated level of creativity, and are very good in advertising, but that is not branding. This is one of the reasons why some SMEs have good branding, yet their products are not known. Hence, the funds that SMEs invest in branding are wasted. This is a lesson to other SMEs, especially those with limited financing for business operations.

They disregard the significance of branding, so they can divert its cost to other matters in producing F&B products.

Third, H3 states that a product with a strong brand is positively related to product value. The findings revealed that branding is positively and significantly related to SMEs' product value (β = 0.419, p-value = 0.000). Thus, hypothesis H3 is supported in this study. The findings reveal that good products' branding will increase product value of SMEs F&B. Furthermore, superior product value will attract consumers. Consumers also buy a product based on brand recommendations by others, if they are using it for the first time. Once they have used it, the consumer would acknowledge the products' brand. The results of this study reveal that most SMEs that maintain and expand their business to export markets have brand names that are more general, clear, and simple. These SMEs consider brands that give product value, which can attract all consumers from diverse backgrounds, races, and religion. These consumers admit to using all sorts of F&B products with acceptable brand names. In addition, the brand must reflect its meaningful product value in local markets. This must reflect the attention given to the products' shelf-space and grab the attention of consumers in the aisles, especially in the hypermarket (Kohli et al., 2005). Thus, H1, H2, and H3 were supported in this study.

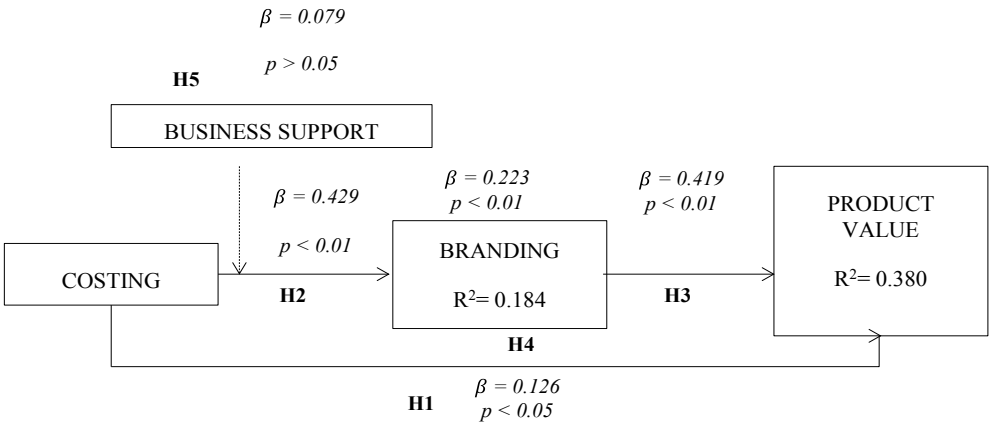

Figure 2. Structural model

Table 3

Results of the hypothesis testing

Hypothesis	Relationship	Std Beta	Std Error	t-value	Decision
H1	Costing → Product Value	0.126	0.051	2.457	Supported
H2	Costing → Branding	0.429	0.043	9.943	Supported
H3	Branding → Product Value	0.419	0.052	7.995	Supported

Table 3 *(Continued)*

Hypothesis	Relationship	Std Beta	Std Error	t-value	Decision
H4	Costing → Branding → Product Value	0.223	0.030	7.344	Supported
H5	Business Support → Branding	0.079	0.065	1.205	Not Supported

To test H4, Table 3, above, exhibits the results of branding on the relationship between cost and product value. The result indicates that it is supported at the level of 95% confidence interval, with p-value less than 0.01 (β = 0.223, t-value = 7.366, p-value = 0.000). Preacher and Hayes (2008) indicated that the mediation effect was evident since the 95% bootstrapping confidence interval (0.179, 0.278) did not straddle a 0 between the lower and the upper intervals. Thus, the authors concluded that the mediation effect was significant, indicating that H4 is supported. The results reveal that branding plays a strengthening role in SMEs' product value. It also suggests that SMEs who are willing to invest part of their products' cost in brand names might influence the SMEs' products' value. This means that a product with good branding will increase its product value, further attracting consumers and distribution channels like the hypermarket (Pergelova & Angulo-Ruiz, 2014; Sahin & Kitapci, 2013). This also applies when the demand for F&B products of SMEs increased, when consumers or distribution channels were attracted and influenced by the products' branding because they knew that the products have substantial value. They are willing to buy the higher-price product because the product's branding is convincing. An increase in product demand will result in rising SME profits and finally expand SMEs' performance, contributing further to the growth of the Malaysian economy.

However, the interaction effect results for branding, as shown in Table 3, are not significant, with p-value larger than 0.05 (β=0.079, t-value=1.205, p-value=0.114). Thus, H5 was not supported. This indicates that SMEs who have a higher practice of business support are less likely to perceive the cost subjected to low branding. The results suggest that business support does not influence the effect of cost on the branding of F&B of SMEs' products. Even though the business support has proven to act as a moderator on branding in previous literature, it is not supported in this study (Pergelova & Angulo-Ruiz, 2014; Spence & Essoussi, 2010). For this reason, the findings seem not suitable in the Malaysia. Some SMEs had misleading thoughts when business support from the government or agencies replaced their brand names. With assistance from the government or agencies, SMEs thought that rebranding their brand would be something that they should do in return. Besides, some of the SMEs might manage products' branding personally

without business support. A lack of support relates to personalised SMEs branding. Therefore, they just ignore the importance of the brand name to sell their F&B product. As a result, these SMEs have difficulty expanding their businesses and remain the same size. The effect is worsened when SMEs are unable to continue their business and must cease their operations.

CONCLUSION

The results of the study indicate that products' costing was significantly related to F&B of SMEs' product value and branding. Products' brands were also associated with a product value of SMEs. The mediating role of branding in the relationship between products' costing and product value was significantly achieved. The results further strengthen the empirical evidence that branding is a key factor in the performance of SMEs' product value. However, the moderating effect of the business support on branding was found to be non-significant in this study.

The findings of this study provide a general guideline for SMEs manufacturing in the F&B industry on how to improve their products, starting with the costs of the production passing through the branding determined in marketing activities. It helps SMEs to understand better how to react to external factors significantly influencing their products. In general, SMEs need to set up a strategy to have efficient costs of manufacturing, signifying a way for SMEs to improve their shortage of capital. Besides, SMEs also need to produce products with good branding at limited cost while offering high-value products to customers.

These findings suggest that the government should focus on SMEs in F&B manufacturing, since they were one of the sectors that had dominated the economy's wealth and development. The government can use this study as a guideline to reformulate the policy for strengthening SMEs in Malaysia. The government should dedicate more effort to eliminating SMEs boundaries and create effective ways for helping SMEs develop their strengths and potentials of their products' branding. This can be tailored specifically to their necessities. For example, when SMEs have no knowledge about designing a brand, the support needs to improve and directly reach these SMEs. Finally, this study may encourage distribution channels like the hypermarket to help SMEs supply or distribute their products. Conceivably, distribution channels can revise their rules and regulations to SMEs who produce F&B products—for example, they could assemble a workshop guide for SMEs. Some SMEs face a lack of knowledge and opportunity to market their products in distribution channels. For instance, the hypermarket only accepted a SMEs product with a unique brand, different name, and its own specialties to compare other similar local products. These SMEs need an explanation about the rules and regulations of distribution channels, thus providing a way to assist SMEs in promoting the products, making them attract more consumers.

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Establishing Green Practice Constructs among Secondary School Students in Malaysia: Confirmatory Factor Analysis Approach (CFA)

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ABSTRACT

This study aims to verify green practice constructs using a confirmatory factor analysis (CFA). A total of 100 secondary school students were selected as a study sample using a simple random sampling technique. The green practice constructs consisted of five major subconstructs, paper resource management practices, electricity-saving practices, water-saving practices, recycling, and eco-friendly product consumption. The constructs included 37 items and used a five-point Likert scale. The data obtained were processed through an exploratory factor analysis (EFA) to ascertain the structure of the green practice determinants. Then, a confirmatory factor analysis (CFA) was used to find the measurement model for each construct using AMOS software. The results showed that the measurement model fit the data obtained which the value of the fit indices of CMIN/DF, TLI, CFI, IFI, NFI and RMSEA were used to produce the appropriate model. As a result, a total of 17 items were retained, consisting of recycling management practices (four items), electricity-saving practices (three items), eco-friendly product consumption (three items), paper resource management (four items), and water-saving practice (three items). Overall, the constructs were

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valid and credible for measuring green practice in the context of this study. The implication of this study will positively lead to the implementation of "going green" to pursue knowledge and practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyle, which can help protect the environment and sustain its natural resources for current and future generations in Malaysia.

Keywords: Exploratory factor analysis (EFA), confirmatory factor analysis (CFA), green practice, secondary school students

INTRODUCTION

Green practice is a practice which is carried out to reduce negative impacts on the environment. The implementation of green practices is crucial to ensure that natural resources are preserved and well maintained. Green practice is able to preserve the environment through its roles in saving the resources, reducing the waste, and reducing global warming. The importance of green practice should be emphasized in the community to ensure that the environment is not damaged as a result of human actions (Bernama, 2012). However, the awareness and attitudes of the community towards environmental issues nowadays are still poor (Ahmad et al., 2011; Mahat et al., 2016).

This lack of awareness has led to the lack of implementation of green practices in everyday life. According to Wee and Radzuan (2010), among the limitations for not implementing green practice include workload, time constraints, lack of information about green practices such as recycling, no societies or special programmes related to it, and the assumptions that such practices are inconvenient and are the responsibility of the government. In addition, green practice is also difficult to be implemented because of their high maintenance (Hwang & Tan, 2012). As a result, the environment has begun to experience deterioration as a consequence of human activities. Environmental concern and awareness are capable of changing human attitudes and behaviours towards environmental issues. A high level of concern in individuals will facilitate appropriate actions in order to avoid severe devastation (Zurina & Er, 2016).

The environmental degradation issue has caught the attention of many researchers recently. In Malaysia, studies related to environmental degradation in green practice is lacking and need to be given more attention. Previous studies have indicated that the younger generation is not engaging in green practice as their routine or daily practice. The knowledge and information sources regarding green practice which are effective based on the findings of this level of study should be demonstrated in practice (Mahat et al., 2017). Therefore, the implementation of green practice should be continuously implemented from an early stage in schools. Efforts

by schools to enhance the awareness of green practice among students is vital to ensure that the students understand and continuously practice them. In addition to the formal education provided by schools, collaboration between schools, teachers and parents is important to ensure the success of green practice.

Thus, such studies on green practice are important to raise public awareness, especially among young generation. Therefore, this study was conducted to verify and validated the constructs of green practice in school environment. Indirectly, this study will be able to determine the constructs of green practice used in the construction of instruments to assess students' awareness about maintaining environmental sustainability. This study is also significant as it will provide us a better understanding on what do students know about green practice and how their understanding is manifested in terms of behaviours regarding implementation of green practice.

GREEN PRACTICES THROUGH EDUCATION FOR SUSTAINABLE DEVELOPMENT

The deterioration of environmental quality is driven by anthropogenic or human action. Humans rely on the environment for their continued survival (Bakar & Idros, 2007). The interdependence between humans and the environment has resulted in the exploitation of natural resources to improve living standards through development. However, widespread exploration without awareness has resulted in the destruction of the environment. The issues of climate change and the release of greenhouse gases into the air are huge challenges that the global community must address. Global warming is characterised by two important mechanisms, the greenhouse effect and the depletion of the ozone layer (Abdullah, 2015). Although natural factors contribute to such mechanisms, human factors are seen as the more dominant cause of such occurrences. Human daily activities, such as the release of chlorofluorocarbons (CFC), vehicle smoke emissions, and open burning that releases carbon dioxide into the air, have resulted in the greenhouse effect, and consequently, have increased global temperatures (Ismail et al., 2011). This was clearly proven by the findings of Hansen et al. (2016), which recorded global surface temperatures in 2014 at +0.68 ° C (~ 1.2° F), which was warmer than temperatures from 1951–1980. This is due to rapidly growing development, which has destroyed many of the world's green areas.

Therefore, in addition to provide awareness through educational elements, a sound effort is needed in society to minimise negative impacts on the environment. This effort is aimed at ensuring that the environment can be maintained for the next generation. To achieve this goal, efforts to create awareness at an early age is crucial to develope a sense of environmental concern. The roles of students as successors and future leaders has the potential to further environmental sustainability (Duhn, 2012). Exploitation of the environment to

generate future economic growth should be balanced with protecting the environment and preventing the occurrence of various disasters that may affect the harmony of society. Exposure on green practice to students will enable them to be more aware of the importance of the environment and to have a sensitivity to it (Ogelman, 2012). The determination of the validity of the green practice constructs in this study can be used as a basis for developing a positive attitude towards the environment and implementing this attitude in daily life.

Effective ways of creating awareness and positive behaviours should be instilled through education. This is because educational elements is a dominant factor in realising sustainable development, and in raising awareness about environmental issues and changing the behaviour of the community towards the environment (Mahat et al., 2016). For example, the United States has continued to move forward by undertaking green urban projects. The Global Green project has involved collaboration between local governments and public agencies that are willing to maintain environmental sustainability. The objective of the programme is to assist the entity in creating innovative policies, programmes, and procedures that establish sustainable practices during the planning, design, construction, and operation of the developed environment (McCabe, 2015). In the context of Malaysia, green practice are most common among government agencies such as the Royal Malaysia Police (PDRM). Its green practices include energy saving, water saving, managing and disposing of solid waste in the right way, and prioritising green products and services among its members to ensure that the environment is well preserved (Department of Information, 2016).

In this study, the Theory of Planned Behaviour was applied in order to understand the relationship between attitude, subjective norms, perceived behaviour control, intention and behaviour towards green practice (Figure 1). Perceived behavioural control was included in the Theory of Planned Behaviour (TPB) to tested whether the inclusion of perceived behavioural control would significantly enhance the prediction of intentions and target behaviour (Madden et al., 1992).

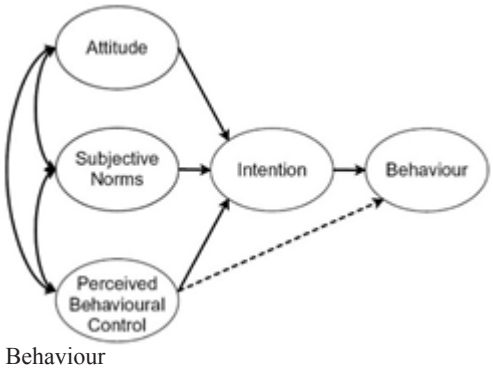

Figure 1. Theory of Planned Behaviour

The results by Madden et al. (1992) indicated that increased precision in the prediction of intentions and targeted behaviours could be achieved by assessing the perceived control over the behaviour. In the study by Valle et al. (2005), TPB was used to predict involvement in recycling. The results confirmed that TPB was a good starting point for the modelling of recycling behaviour. TPB was also used to examine the consumer purchase intention for organic care products and organic food products in the studies by Kim and Chung (2011) and Thorgersen (2005). This situation clearly shows that changes in human behaviour can lead to positive changes in the environment. According to Schultz et al. (2005), Steg and Vlek (2009), and Tan and Lau (2009), changes in human behaviour in everyday life have the potential to reduce environmental problems. Although Figure 1 shows the diagram of the causal relationship between the variables, this study only focuses on the testing of the items used in each variable / construct or dimension tested. Therefore, this study is aimed at verifying the key elements based on previous studies using the statistical analysis techniques for a confirmatory factor analysis (CFA).

The issue of environmental degradation is a shared responsibility which needs to be addressed by all countries. Actions that have been implemented by the developed countries have influenced countries such as Malaysia to participate in addressing environmental problems. The idea of sustainable schools, e.g., the Environmental Award Sustainable Schools (SLAAS), also contributes to the development of environmental education in society. SLAAS is a joint venture with the Ministry of Natural Resources and Environment and the Ministry of Education Malaysia (KPM) which is aimed at implementing sustainability through education. It is a fundamental step towards protecting the environment by focusing on environmental, social, and economic aspects (Mahat, 2014). A study by Sharaai and Chin (2012) regarding the attitudes and practices of primary school children with respect to the concept of sustainability showed that student knowledge was at a moderate level, although good practices and attitudes were at a high level. The education system in this country should emphasise sustainable concepts at earlier levels, especially the first level, to enable students to be exposed to environmental elements at an early age. This effort is significant in enhancing the meaning and value of sustainability so that it can be translated into students' attitudes and practices.

In addition, Malaysia has also taken the initiative to contribute to the reduction of global environmental problems by introducing a Green Technology Policy. According to the Ministry of Energy, Green Technology and Water (KeTTHA, 2011a), green technology is an environmental science application aimed at conserving resources and nature, and preventing them from being directly threatened by human activities, as well as curbing their risk of destruction. Green technology features lower carbon emissions and is

more environmentally friendly compared to the existing technologies in order to minimise the degradation of environmental quality. It also has low or zero emissions of greenhouse gases (GHG) and is safe to use. Green technology has the potential to provide a healthier and better environment for all living beings, as well as to conserve energy and natural resources and promote renewable resources. There are four pillars of the National Green Technology Policy in Malaysia:

1. Energy—seeking energy independency and promoting energy efficiency
2. Environment—conserving and minimising the impact on the environment
3. Economy—enhancing the country's economic development through the use of technology; and
4. Social—improving the quality of life for all.

An emphasis on green technology is the best solution to address the issue of greenhouse effects. It is also in line with the main agenda of all governments around the world today, which prioritises environmental issues, especially the global climate change phenomenon (KeTTHA, 2011b). Green technology applications are among the steps taken to slow down the process of global climate change. According to Bokhari et al. (2014), green technology applications are in line with the concept of sustainable development, which emphasises that the implementation of development must meet current needs without compromising the needs of future generations.

One of the elements contained in green technology is green practice. The activities included in green practice are recycling, water saving, electricity saving, eco-friendly product consumption, and reducing paper resources. These green subpractices are derived from a literature review and are also based on the guidelines which have been implemented by many agencies. According to the Ministry of Energy, Technology and Water, green practice refer to practices aimed at reducing the negative effects on the environment caused by human activity. Green practice are easily implemented by consumers and do not have a high cost of implementation (Association of Water and Energy Research Malaysia [AWER], 2012). Green practices are very significant in ensuring that sustainable development goals are achieved. In addition, green practices can lead to the use of green technology, which is strongly encouraged to minimise energy consumption levels (Sabri & Teoh, 2006).

In addition, green practice can also simultaneously enhance the economic development of a country (Mariani, 2008). Awareness of the importance of green practices needs to be applied in communities to ensure that they are more sensitive to environmental change. The implementation of programmes related to green practice is needed as a mechanism to help countries achieving sustainability and to provide

students with an understanding of the importance of preserving the environment at an early age through educational approaches (Mahat et al., 2016). The involvement of students in school co-curricular activities is one of the ways to educate students about green practice. Such activities will also allow the teachers and administrators to participate in promoting environment-related activities regarding green practice. Efforts to educate the community are necessary for the creation of environmental awareness (Johar, 2013).

Hence, green practice needs to be instilled in the early stage of school to create environmentally friendly citizens. An emphasis on and holistic approach to maintaining the environment in the formal learning systems of educational institutions are necessary in order to create a younger generation that understands the importance of preserving the environment.

METHOD

Study Design

The purpose of this study is to verify the constructs of green practices using CFA analysis. One hundred sample are required to carry out an exploratory factor analysis, as described by Pearson and Mundform (2010). Therefore, 100 Form 4 students in the Muallim district, Perak were selected using simple random sampling techniques.

Study Instrument

The main purpose of this study was to verify the key elements of the determinants of green practices among students through education regarding sustainable development. The research instrument was divided into two parts. Part A consisted of demographic information, and part B consisted of questions related to green practice. The respondents were asked to answer each question using a five-point Likert scale (1—Strongly Disagree, 2—Disagree, 3—Somewhat Disagree, 4—Agree and 5—Strongly Agree). The instrument contains 37 items that are classified into five major subconstructs: ten items to measure recycling practices, five items to measure water-saving practices, six items to measure electricity-saving practices, seven items to measure eco-friendly product consumption practices, and six items to measure paper resource consumption practices. Apart from examining its validity and reliability, this initial study is also aimed at determining the items that can be used in the actual studies (Table 1).

Table 1

Source of references for green practice constructs

Section	Sub-Construct	No. Items	Source
E3A	Recycling practice	10	(Wee & Radzuan, 2010)
E3B	Water saving practice	5	(Frederick, 2016)
E3C	Electricity saving practice	6	(KTAK, 2008), (Hussain, 2013)

Table 1 *(Continued)*

Section	Sub-Construct	No.Items	Source
E3D	Eco-friendly product consumption	7	(KeTTHA, 2011a), (Zurina & Er, 2016)
E3E	Paper resource consumption	6	(Melaka, 2014)
Total		37	

Method of Data Analysis

The items used in this study were related to students' green practices and the analysis performed was a reliability analysis. This analysis was done for each variable to determine the level of reliability of the data obtained. Next, the demographic information for the respondents involved in this study was analysed descriptively to determine the frequency and percentage of each demographic factor. Then, an EFA was conducted on the study items to ascertaining how the items used were classified according to the structure of certain factors (Hair Jr et al., 2010). The next step was to verify the hypothesis model through a structural modelling equation using a CFA analysis.

Reliability Analysis

A reliability test is important for measuring the capabilities of items in the instruments used. Reliability refers to the accuracy and stability of the points or marks, i.e., the internal consistency of an instrument's measurement scale (Kimberlin & Winterstein, 2008). According to Sekaran and Bougie (1992), increasing in alpha values are proportional to the value of reliability. Moreover, Tavakol and Dennick (2011) stated that the alpha values were low because of a weak relationship between the items, and thus, item removal should occur.

Factor Analysis

The purpose of the factor analysis is to identify the relationship between the variables. Variables with a strong relationship will produce a new pattern. According to Yusrizal (2008) and Bartholomew et al. (2011), a factor analysis is a way to obtain a new construct group that is much smaller than the previous one. Factor analysis can be divided into two analyses—EFA and CFA.

Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) can be described as a method that aims to simplifying the interrelated variables. It is a variable reduction technique that identifies the number of latent constructs and the factors that underlie the structure of a set of variables (Suhr, 2005). According to Child (2006), EFA is used to explore the structure of factors that may underlie the set of variables studied prior to further analysis. Through EFA, the number of constructs and the structure of the underlying variables studied can be identified.

The structure of the factors formed is based on the feedback findings from the study sample. The dimensions, indicators, and concrete details to produce constructs from the tested variables are determined through factor analysis. In addition, through this factor analysis, a smaller set of new variables to be compared to the previous variables is identified (Yusrizal, 2008). According to Hu and Li (2015), the purpose of EFA is to determine some of the factors that represent the measurement variables. Therefore, a factor analysis is not intended to make predictions regarding variables, but rather is a method of finding the relationship between the whole set of variables, as well as ascertaining the strength of the relationship. EFA occurs before the CFA process for the instrument used in order to minimise variance differences and to identify the number of items required by each variable factor.

Confirmatory Factor Analysis (CFA)

CFA allows researchers to test the hypothesis concerning whether there is or is not a relationship between the variables examined and the burden factor. CFA attempts to validate a hypothesis and uses an analysis diagram to represent the variables and factors (Yong & Pearce, 2013). Researchers use theoretical knowledge, empirical research, or both to ascertain a priority relationship pattern, and then, the hypothesis is tested using the statistical method (Bryne, 2010; Hair et al., 2010). The model to be constructed contains latent variables and variables observed in a model called a measurement model. This measurement model is a model that defines the relationship between the 'observed variable' and 'latent variable'. These latent variables are also known as factors or constructs, and the observed variables are also known as indicators. Indicators are the items (questions) used in the questionnaire developed to detect these latent variables or constructs (Byrne, 2010; Hair et al., 2010). The weights produced after the analysis are called the weight measurement or load factor.

STUDY FINDINGS AND DISCUSSION

The results of this study are described and discussed based on some important information that had been obtained from the respondents. The findings are divided into three parts, which consist of the reliability of the instrument, the assessment of the suitability based on the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy value through the analysis of the EFA, and the verification of the green practice construct through a CFA. An analysis of the 100 respondents' background revealed 38 male respondents and 62 female respondents.

Reliability Analysis

The Cronbach's alpha was used to assess the internal consistency reliability for each of the constructs. The reliability analysis was done to purify the questionnaire items, and it was used as evidence to show that the sample items in the study instrument represent or measure all the contents of the

field studied. In this study, the reliability value of the research instrument obtained was greater than 0.8 (Table 2). According to Sekaran and Bougie (1992), a reliability value of less than 0.60 is considered low and unacceptable, while a Cronbach's alpha value within the 0.60 to 0.80 range is acceptable. A value greater than 0.80 is considered good. However, according to Abu and Tasir (2001), instruments with a coefficient value of more than 0.60 can be regarded as instruments of high reliability.

Factor Analysis

Two major tests were conducted, namely an EFA and a CFA, to test the validity and consistency of the questionnaire. Both of these tests were conducted to verify whether the items in the questionnaire really represent the students' green practice variables.

Exploratory Factor Analysis (EFA)

A KMO Measure of Sampling Adequacy and a Bartlett Test of Sphericity were conducted to assess the assumptions for the correlated variables in the initial solution. The KMO Measure of Sampling Adequacy is 0.855, which is far greater than 0.5 for the necessary factoring value (Table 3) (Spicer, 2005). As this is a meritorious value according to Hair et al. (2010), it shows that there is a strong correlation among the items. The Bartlett's sphericity test was significant, with a chi-square value of 3361.795 with 666 degrees of freedom. The significant value for the Barlett's test was p = .000; this proves that the item has been factored.

The factor analysis was done by the researcher to determine the number of factors to be extracted, which was five as categorised in the questionnaire. Table 4 shows the component matrix with a rotation varimax and factor loading. The rotation varimax method was used, as it reduces the number of complex variables and can increase the expected yield. The meaning and the importance of the items were examined to determine whether the item should be retained or removed. The problematic items were removed iteratively and the fit indices were examined every time an item was deleted. The results revealed

Table 2
Values of the study items' reliability

Section	Construct	No. item	Alpha Cronbach Value
Green Practice	Recycling practice	9	0. 927
	Electricity saving practice	7	0.893
	Eco-friendly product consumption	7	0.926
	Paper resource consumption	8	0.910
	Water saving practice	6	0.886

Table 3

Suitability test for the use of factor analysis and the uniformity of the KMO items and the Bartlett's Test against the Green Practice Constructs

Kaiser-Meyer-Olkin	Measure of Sampling Adequacy	0.855
Bartlett's Test of Sphericity	Approx. Chi-Square Spherecity	3361.795
	df	666
	Sig.	0.000

Table 4

Component matrix with rotation varimax and factor loading

Component									
Recyling	FL	Electricity Saving	FL	Eco-friendly	FL	Paper Resource	FL	Water Saving	FL
Ah 19	0.675	Ah 9	0.730	Ah31	0.696	Ah1	0.698	Ah 16	0.604
Ah 20	0.709	Ah10	0.744	Ah32	0.761	Ah2	0.616	Ah17	0.655
Ah 21	0.641	Ah11	0.641	Ah33	0.708	Ah3	0.694	Ah 18	0.652
Ah 22	0.653	Ah 12	0.762	Ah34	0.776	Ah4	0.745	Ah 28	0.714
Ah 23	0.725	Ah 13	0.677	Ah35	0.740	Ah5	0.770	Ah 29	0.617
Ah 24	0.681	Ah 14	0.699	Ah36	0.715	Ah6	0.724	Ah 30	0.647
Ah 25	0.712	Ah 15	0.637	Ah37	0.758	Ah7	0.642		
Ah 26	0.670					Ah8	0.690		
Ah 27	0.671								

that no item should be dropped, as all the items had an anti-image correlation matrix value of more than 0.5. According to Hair et al. (2010), a factor loading exceeding the value of 0.50 is required to ensure that an item measures what it is supposed to measure. It was found that the factor loading for each latent variable was above 0.50. The value of Ah 19, Ah 20, Ah 21, Ah 22, Ah 23, Ah 24, Ah 25, Ah 26, Ah 27, belonged to component one, which is recycling practice, while the value of Ah 9, Ah10, Ah11, Ah 12, Ah 13, Ah 14 and Ah 15 were accumulated in component two, the electricity-saving group. The Ah 31, Ah 32, Ah 33, Ah 34, Ah 35, Ah 36, and Ah 37 values were accumulated in component three, which was environmentally-friendly product consumption. The Ah 1, Ah 2, Ah 3, Ah 4, Ah 5, Ah 6, Ah 7 and Ah 8 values were accumulated in component four of the paper, which was the consumption practice group. The values of Ah 16, Ah 17, Ah 18, Ah 28, Ah 29 and Ah 30 were accumulated in component five, which was the water-saving group.

In addition, the values shown in Table 4 also refer to the coefficients or factor loading for each item that tends toward each factor being grouped. This value shows the

correlative relationship between the item and the factor formed, and this is the key to understanding the nature of these factors.

Confirmatory Factor Analysis (CFA)

CFA was conducted to validate the measurements that had been undertaken during the EFA. The data were collected from 100 samples, and five factors of the measurement model were tested using AMOS 20.0. Some modifications were made to improve the model. One of the modifications was the deletion of items with low factor loadings. After the modifications, the overall model showed that the corresponding index value was p = 0.000, the normed chi square = 205.394, the CFI = 0.911, and the RMSEA = 0.084. The value produced by the CFI was equal to 0.911. The value was greater than 0.90, indicating that this model is valid and that there is high compatibility between the model and the data (Hu & Bentler, 1999). The resulting value of the GFI, which was 0.821, approximates 0.90. This shows that the resulting model is good. In addition, the RMSEA for this study was equal to 0.084; this value is less than 0.10. Hair et al. (2010) stated that 0.080 is a good value for the RMSEA, but that a value less than 0.10 is acceptable. This indicated that the fundamental factor of the green practice constructs in Figure 2 is valid and acceptable (Hair et al., 2010).

The correlation between the constructs is shown in Table 5. The value shows the correlation between the constructs. The conditions for the correlation between the constructs are met where all the values for the diagonal are greater than the values below. This is simililar as described by Shevlin and Miles (1998), where values greater than 0.9 are acceptable when the sample sizes are smaller.

However, measurement errors were found between items Ah 1 and Ah 2, and Ah 9 and Ah 11. These items are correlated with each other at 0.40 and 0.32. The findings based on the observation made showed that these four items had almost the same meaning. This situation prompted the respondents to choose answers that were almost identical. For items Ah 1 and Ah 2,

Table 5

Correlation between constructs

Constructs	1	2	3	4	5
Recycling practice	1.00				
Eco-friendly product consumption	0.81	1.00			
Paper resource consumption	0.67	0.66	1.00		
Electricity saving practice	0.73	0.75	0.82	1.00	
Water saving practice	0.77	0.62	0.78	0.93	1.00

the word usage led to overlapping. Items Ah 9 and Ah 11 used a word in their sentence structure which caused them to look the same. Therefore, they produced statements with very similar meanings. Based on the modifications index (MI), correlating the measurement error between the items is recommended. Overall, the model is acceptable and provides factorial validity to the determinants of green practices among students.

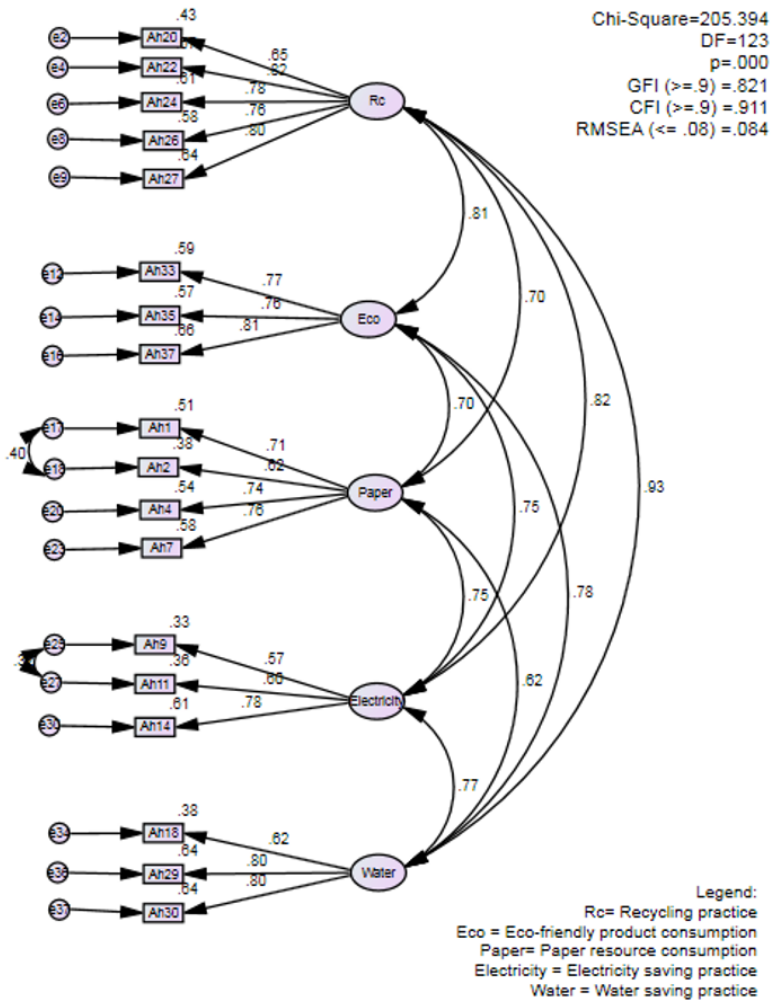

Figure 2. Confirmatory factor analysis (CFA) of green practice constructs

CONCLUSION

The adoption of green practices among students should be carried out at the school level, as it is a trigger for the implementation of green practices in the future. Frequent issues associated with a low level of awareness regarding the implementation of green practices are continually increasing. Factors such as time constraints and a lack of knowledge regarding how to implement green practices are the main reasons that students do not carry them out in their daily lives. Thus, the role of the school, teachers, and the media is very important in raising awareness about green practices. Research on green practices should also be increased to enable the students' level of awareness of green practices to be directly measurable and to be improved.

The results of this study have shown that the determination of the construct validity in this study proves that convergent and discriminant validity has been achieved based on a CFA analysis. Some items were removed in order to obtain a better compatibility index and five factors have been generated in the implementation of green practices; i. paper resource management practices, ii. electricity-saving practices, iii. water-saving practices, iv. recycling, and v. eco-friendly product consumption. A correlation analysis between the variables was conducted to examine the existence of relationships between the constructs in which the correlation coefficient between the variables was less than 0.90. This provides an early indicator that each variable measures different things.

Thus, it can be concluded that this measurement model conforms to the characteristics of a good fit suitability model in identifying and validating important aspects that specifically verify green practices among students. However, this study could still be improved in the future, taking into account several other aspects leading to green practices that are not included in this study. Further, this study could be improved in the future by taking into account the number of samples and by varying the analysis techniques. The instrument is suitable for use in the context of education in Malaysia.

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Underlying Structure of Job Competency Scale in Climate-Smart Agricultural Extension Service

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ABSTRACT

Climate change could reduce agricultural productivity in lower latitude communities, thereby threatening the food security and livelihoods of farm families. Climate smart agriculture (CSA) has been identified as an approach that could sustainably enhance productivity and mitigate the exacerbating effect of climate change on agriculture. For CSA technologies to be accepted, there is a need for special advisory services delivered by competent extension agents. This study assessed the structure of such competencies among 341 Malaysian extension workers selected randomly. The data obtained from a structured questionnaire was subjected to Varimax rotation of the principal component analysis. The KMO obtained was 0.847 while Bartlett's Test was significant ($p < 0.001$). Assessment of internal consistency revealed a Cronbach alpha of 0.926. Using Kaiser's criterion, seven components explaining 76.053% variance were extracted. However, parallel analysis streamlined and retained five components. This implied that CSA competency among Malaysian extension workers had a five component structure. This should be taken into consideration when designing trainings to make sure the relevant aspects are covered. It could also be beneficial in climate change adaptation and mitigation programmes.

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Keywords: Agricultural extension; climate-smart agriculture; competency; parallel analysis; principal component analysis

INTRODUCTION

Climate change has varying effects on different agricultural enterprises in different parts of the world. In the lower latitudes, where Malaysia is located, the overall impact is expected to be lower agricultural productivity (Vaghefi et al., 2016). The greatest threats of climate change are on the food security and livelihood of vulnerable societies. Developing countries may face a decline of 9 to 21% agricultural productivity which would exacerbate food and nutritional insecurity (Devendra, 2012). Climate smart agriculture (CSA) has been identified as an alternative approach that could sustainably enhance productivity and mitigate the exacerbating effect of climate change on agriculture. This calls for a site-specific approach to mitigate and adapt to the phenomenon while enhancing the resilience and livelihoods of individuals and communities. It also poses enormous challenges for extension and rural advisory services to promote relevant innovations in line with the changing demands. This is more so as one of the major issues in up-scaling CSA is information dissemination (Sala et al., 2016).

Empirically developed scales are important in measuring concepts and constructs in social science studies (Bernard, 2006; Kumar, 2011). Competency is one such construct. While there are scales for measuring core competencies in agricultural extension and advisory services (Suvedi et al., 2018; Suvedi & Kaplowitz, 2016); there is a pronounced dearth of evidence-based, empirically developed, standard scales for measuring specific competencies of extension agents (EA) that are applicable to relevant contemporary issues such as climate change in the tropics. Hence, this study identified relevant items in the construct and assessed their underlying structure.

The study is organized in five major sections. The current section introduces the work by presenting its background, significance and research questions. The next section reviews relevant literature on competency, CSA and the principal component analysis. The section on methodology describes the participants, measurement of the scale and the analytical technique. This is followed by the results section where the findings are presented. The subsequent section discusses the findings and their implications for extension practice. The final section presents the conclusion.

RESEARCH QUESTIONS

The principal components analysis (PCA) could be designed and performed to achieve several goals. This study is aimed at summarizing the patterns of correlations among the observed variable items; reducing the large number of observed variables to a smaller number of factors; and establishing construct validity for the scale of competency in CSA advisory services. These are achieved by answering

the following research questions: How many reliable and interpretable factors are there in the data set of 31 CSA advisory competency items? Which factors account for the most variance in CSA advisory competence among extension personnel? How much variance in the data set is accounted for by the factors?

Significance of the Study

This study delineates the construct of competence in the context of CSA advisory service and proposes a scale for its measurement. This would be beneficial in future studies that would require the concept of competence among its variables in similar contexts. The scale would help in measuring the levels of competence among extension workers and identifying competence gaps and training needs. Such information is vital to extension organizations for capacity development efforts. It is also expected to be relevant for agricultural and environmental policy making aimed at climate change adaptation and mitigation among extension clients in developing tropical countries.

LITERATURE REVIEW

Competency

The term competency was arguably popularized in the field of human resource development (HRD) by McClelland in 1973 in his seminal work titled 'Testing for competence rather than for "intelligence"', as an alternative to traditional intelligence testing in organizations (McClelland, 1973; Vathanophas & Thai-ngam, 2007). He conceptualized competence as a personal trait associated with high performance and "demonstration of particular talents in practice and application of knowledge required to perform a job" (McClelland, 1973). It has been defined as the adequacy of skills and knowledge that enable a person to act in various situations. Competence is the ability or capability (Boyatzis, 2008) to do something efficiently and effectively (i.e. successfully). It refers to a set of related but distinct behaviours organized around an underlying construct, called the "intent". Earlier on, he defined the concept as an omnibus term covering abilities, traits, knowledge, skills and behaviours enabling the performance of a task within a specific function or job by an individual (Boyatzis, 1982). Recent studies have maintained the general theme of the earlier definitions of the concept as the behavioural attributes required for a person to perform a role effectively (Priyadarshini & Dave, 2012). Competency refers to the individual's ability to apply or use knowledge, skills, behaviours and attributes to effectively perform tasks, specific functions, or operate in a specified role (Chouhan & Srivastava, 2014).

Broadly classified as core and specialized, competencies are also referred to as technical (hard) and functional (soft, process) respectively. In the field of agricultural extension and rural advisory services, core competencies are those identified by the Global Forum on Rural Advisory Services (GFRAS) Consortium as critical for extension agents throughout the world (Davis, 2015). Core competencies also refer to collective organizational skills upon

which the organization bases its primary operations or services (Suvedi & Kaplowitz, 2016). Technical competencies for field extension workers vary according to the area of specialization and responsibility (Suvedi & Kaplowitz, 2016). Special contexts and/or phenomena (such as environmental changes, famine, or natural disaster) usually require specialized competencies. The current study focuses mainly on the technical competencies expected of field level extension agents delivering CSA advisory services in Malaysia.

Competence has always been linked to performance. This is because competencies are seen as behavioural factors that serve as efficient tools in measuring performance (Zaim et al., 2013). This implies that extension agents with high a level of competence tend to perform the job of advisory service more efficiently. Identifying relevant competencies and incorporating them in trainings would improve the performance of extension agents. This, in turn, would bring about improvements in the clientele through, for instance, higher resilience to climate change. Studies have shown high correlation between various competency dimensions, and job performance (Boyatzis, 2008; Mckim, 2013; Singh et al., 2016; Suvedi & Kaplowitz, 2016; Vathanophas & Thai-ngam, 2007; Xu & Ye, 2014; Zaim et al., 2013). Likewise, the performance of Malaysian EAs is determined by their level of competencies (Awang, 1992; Tiraieyari, 2009; Tiraieyari et al., 2010).

However, most of the extension agents interviewed revealed low to moderate levels of both job performance (65.7%) and CSA advisory competence (61.5%). These findings are presented in Figure 1. This corroborates not just the relationship between the concepts but also the need to deconstruct the construct of competence, as it is proven to be a precursor of performance. Studies in the area (Peninsular Malaysia) have already established a causal relationship between competency and job performance among extension agents (Tiraieyari et al., 2010; Umar et al., 2018). Therefore, understanding the structure of competence

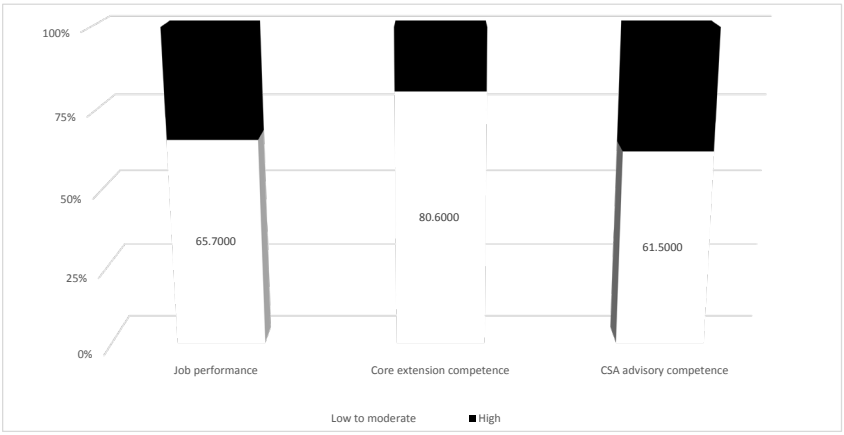

Figure 1. Levels of performance and competencies among extension agents in Malaysia

as achieved in this study is vital in enhancing job performance among extension agents.

Climate-smart Agriculture

Climate smart agriculture refers to the practices that address in an integrated approach the interlinked challenges of food security and climate change. It consists of three main objectives: sustainably increasing food security by increasing agricultural productivity and incomes; building resilience and adapting to climate change; and developing opportunities to reduce the emissions of greenhouse gases as a by-product of agriculture. Extension and rural advisory services could help in achieving these objectives among farming households by facilitating increased access to climate-resilient practices, knowledge information and technologies; as well as enhancing cooperation and income diversification (Sala et al., 2016). CSA practices will also contribute to the achievement of national food security and development goals (Food and Agriculture Organization [FAO0, 2010, 2013; Sala et al., 2016).

Technologies and practices compatible with CSA are plentiful and diverse depending on factors such as location and enterprise. Hence, any innovation that supports one or more of the three features of CSA (productivity, resilience and mitigation) is considered a CSA technology (Khatri-Chhetri et al., 2016). Some of the CSA technologies used effectively in the Rajasthan State of India are categorized as: water-smart (including rainwater harvesting, drip irrigation, drainage management, laser land levelling and cover cropping); energy-smart (including zero/minimum tillage); nutrient-smart (including site specific integrated nutrient management, green manuring, leaf colour chart and intercropping with legumes); carbon-smart (including agro-forestry, fodder management, concentrate feeding and integrated pest management); weather-smart (such as climate smart housing for livestock, weather based crop agro-advisory and crop insurance); and knowledge-smart (including contingent crop planning, improved crop varieties and seed and fodder banks).

According to the Food and Agricultural Organization of the United Nations (FAO, 2010) CSA technologies include: soil and nutrient management (composting manure and crop residues, more precise matching of nutrients with plant needs, controlled release and deep placement technologies or using legumes for natural nitrogen fixation); water harvesting and use (pools, dams, pits, retaining ridges) and water-use efficiency (irrigation and drainage systems); pest and disease control; and resilient ecosystems (control of pests and disease, regulation of microclimate, decomposition of wastes, regulating nutrient cycles and crop pollination).

Enabling and enhancing the provision of such services can be achieved through the adoption of different natural resource management and production practices. It is important to note here that, there is no one solution that fits all situations and remedies all climate change effects in all societies. CSA technologies vary with location due to differences in agro-ecology, farm

enterprises, technological advancement and socio-cultural disparities. Malaysia and, especially, its agricultural practitioners, being located in the lower tropics are prone to the adverse effects of climate change (Vaghefi et al, 2016). The present study is therefore, a significant step in locating the competence levels of extension workers in the priority (Khatri-Chhetri et al., 2016; Notenbaert et al., 2016; Shikuku et al., 2016) CSA technologies in Malaysia. In doing so it also uncovers the underlying structure of a potential scale of measuring such competencies.

Although core extension competencies have been categorized into a model of four major sub-components (Suvedi & Kaplowitz, 2016), the study reports that specific technical competencies vary with location and context. There is no theory yet explaining the structure of competencies of CSA advisory services in Malaysia, nor in other locations. Therefore, the expected outcomes of this study also include the exploration of core and specific competencies of EAs in developing countries and their implications.

Principal Component Analysis

The latent structure of a set of items could be empirically determined using principal components analysis (PCA). The items in the scale are grouped into a smaller number of super-variables (Tabachnick & Fidell, 2007). Although, some researchers/ academics appreciate the similarity between PCA and factor analysis (Field, 2009; Pallant, 2011) with some asserting that PCA is a form of factor analysis, Tabachnik and Fidell (2007) maintained that while the former was an empirical analysis, the latter was theoretical. Another disparity is in the variance that is analysed in either analysis. Factor analysis (FA), only analyses shared variance and excludes other forms of variance resulting from error and individual variable. Meanwhile, in the PCA, all variance is analysed. Additionally, PCA is adjudged to be a psychometrically sound analytical technique that is less conceptually complex than factor analysis (Field, 2009).

In this study the PCA was used to determine items (or variables, according to Tabachnik & Fidell (2007)) which grouped together to form factors that were independent of one another. This could provide an evidence-based measure of competence in CSA advisory and explain how the scale is latently structured among extension personnel. From a review of studies, over 60 question items were extracted to form a scale of competence in CSA advisory. In collaboration with experts in the academia and practice, these were narrowed down to 31 items that were considered valid and relevant in the study area. This study subjected these 31 items to PCA in order to understand how they are structured and assess their correlation.

METHODOLOGY

Participants

The population studied was made up of all public extension personnel in Peninsular Malaysia, consisting of supervisory cadre and field level extension agents in general.

The sample frame was obtained after compiling lists of personnel from the following agencies: MADA, KADA, IADA, RISDA, DOA, DOF and DVS. According to the Global Forum for Rural Advisory Services (GFRAS) there are a total of 1355 extension workers in Malaysia as of 2012 (Swanson & Davis, 2014). Computation using Raosoft® Sample Size Calculator set at confidence level of 95% and acceptable margin of error of 5% indicated that a sample size of 300 was appropriate. The sample selection was conducted using Random Number Generator. The principle of sampling implores the use of as large a sample size as possible considering available resources. As Kumar (2011) puts it "the greater the sample size, the more accurate the estimate …". Therefore, a higher number of respondents (350) was selected. This was also meant to off-set non-response and unusable questionnaires, as 300 is the minimum acceptable sample size for PCA (Tabachnick & Fidell, 2007). After retrieval and cleaning of the instrument a total of 341 forms were considered to have enough information and were retained.

In concurrence with the findings of Tiraieyari (2009), the socio-demographic profile of respondents indicated that the majority (87%) of extension personnel in the study area were men. Similar studies in other regions also indicate that agricultural extension is a male-dominated profession (Diehl et al., 2015; Kwaw-mensah, 2008). The findings of the socio-demographic profile also indicated that 61% of the respondents were 40 years of age and below, and perhaps willing to experiment and learn new phenomena such as CSA advisory in their line of work. Most (77%) of the respondents occupied the job position of agricultural assistants while the remaining 23% were agricultural officers. In terms of educational attainment, 35% indicated having SPM (equivalent to high school) certificate while only 12% reported having a university degree. A 2014 study in Malaysia revealed a similar trend when it found that 46.7% of extension agents held SPM while 10% held bachelor degrees (Tiraieyari et al., 2014). This relatively low educational attainment calls for enhanced training and capacity-building of personnel.

Measure

To measure the competency of extension workers in delivering CSA advisory services to farmers, a scale of 31 items was put together based on literature from World Meteorological Organization (WMO)'s climate services competencies, Food and Agricultural Organization of the United Nations (FAO), Global Alliance for Climate Smart Agriculture (GACSA) and the United Kingdom Department for International Development (DFID)'s climate and environment advisers competency framework among others (DFID, 2011; FAO, 2010, 2013; Sala et al., 2016; Khatri-Chhetri et al., 2016; WMO, 2016). The instrument was assessed for face and content validity by experts in Faculties of Agriculture and Educational Studies in Universiti Putra Malaysia, and officials of the Department of Agriculture (DOA),

Malaysia and was found to be a valid measure of training needs on climate change competencies in Malaysia. Moreover, it was pretested among 30 extension personnel that were not part of the study sample and it was found to have attained an acceptable level of reliability.

Statistical Analysis

In this study, IBM® SPSS® version 23 was used in performing the analyses. Varimax form of orthogonal rotation was employed as there is no underlying theory about which variables should be compiled into which component and the association is basically empirical. Therefore, any label or name attached to a resultant component is just a reflection of the variables associated with it (the component). This is the case in CSA advisory as an item of competency can fit into different components depending on the area of the study and farming system practices. For instance, ability to disseminate weather forecast information can be seen as a strategy in facilitating adaptation. At the same time, it can also lead to increased productivity if the information is applied appropriately by the client. Therefore, such items can be interpreted based on components they are assigned in relation to other items. A step-wise approach to the statistical procedure is presented herewith:

Selecting and Measuring a Set of Variables. As explained earlier, the variable items in this study were derived from literature. In collaboration with professionals, the items were screened and the best-fit were selected for inclusion in this study. These were measured using a 5-point Likert-type scale in a structured questionnaire. The reliability of the scale was established.

Assessing the Appropriateness of the Data. One of the important requirements of PCA is adequate sample size. This is because large sample sizes tend to produce more reliable correlation coefficients (Tabachnick & Fidell, 2007). This study used 341 cases which is safely an acceptable sample size. Another requirement for factor analysis is the level of inter-correlations among the items (Pallant, 2011). This could be assessed from the SPSS output through the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO). Meanwhile, Bartlett's Test tests the hypothesis that the population correlation matrix is an identity matrix. An identity matrix has all the correlation coefficients as zero, and is not suitable for factor analysis. Therefore, the Bartlett's Test is expected to be significant ($p < 0.05$). Likewise, the reliability of the scale was established. These were tested and the data was found to be appropriate for PCA.

Extracting a Set of Factors. PCA aims to extract maximum variance in the data set with few components thereby summarizing large data set into a smaller number of components for interpretation and comprehension (and further analysis). The researchers have to decide on the number

of components that explain the variance. It is an issue of judgement while trying to balance the need to have a simple solution with the least possible number of factors; and the need for a solution that explains as much of the variance as possible. There are a few techniques found to be handy in deciding the number of factors to extract. They include: Scree plot, Kaiser's criterion and parallel analysis (Pallant, 2011). To prove the superiority of parallel analysis, all the techniques were conducted for this study.

The scree plot is a visual method of determining the number of components to extract. It is basically a graph of eigenvalues on the Y-axis against the factors on the X-axis. It displays relative importance of each factor with few factors on the sharp descent and the remaining more or less on the horizontal. SPSS uses the Kaiser's criterion to retain factors by default, depending on the settings. However, the Kaiser's criterion is widely criticized as being unreliable and for overestimating (Field, 2009).

To counter these shortcomings, Horn's parallel analysis was conducted. It generated eigenvalues from many random hypothetical sets of data with similar characteristics as the data being analysed. All factors with eigenvalues greater than those from the randomly generated data were retained (Dinno, 2009; O'Connor, 2000) taking into consideration the argument by Field (2009) that it is always better to retain too few than too many factors.

Rotation. The factors extracted were relatively complex to interpret. To simplify the output and enhance its scientific usability, the factors were rotated to maximize loading of each item on one of the extracted factors while suppressing it on the other factors (Tabachnick & Fidell, 2007). The orthogonal rotation is suitable for analyses when their underlying factors are independent and correlated (Tabachnick & Fidell, 2007) and when variables are not theory-driven (Field, 2009). It is assumed to be clearer for interpretation. In this study, Varimax type of the orthogonal rotation was considered most appropriate and, therefore, conducted.

RESULTS

After subjecting the 31 items to PCA, the KMO value obtained was 0.847. This is considered acceptable as it is greater than 0.7, and the data set is appropriate for factor analysis. Bartlett's Test indicated that the correlation matrix is significantly different from correlation matrix ($p < 0.001$). Reliability was measured in the form of internal consistency and the Cronbach's alpha was 0.926. Other assumptions such as factorability, linearity and absence of outliers were fulfilled as prescribed by Pallant (2011). The commonalities, which refer to the amount of variance an item variable shares with all the other variables in the analysis, were found to be ranging between 0.599 and 0.871 with a mean of 0.761. By default, SPSS uses the Kaiser's criterion and extracts all factors with eigenvalues of 1 and above. Using this criterion, seven factors were extracted. These factors explained 76.053% of the

total variance. To ensure the retention of all the seven factors, a parallel analysis was carried out and the findings were discussed subsequently. The scree plot is known to be subjective. In this instance, shown in Figure 2, there are three inflection points that could be considered to retain 3, 4 or 7 factors respectively.

A parallel analysis was conducted in which the PCA for 100 sets of randomly generated data with similar specifications (341 cases and 31 variables each) as the data in this sample were obtained. The outcome as shown in Table 1 indicates that only the first five components have parallel analysis eigenvalues greater than actual eigenvalues. Therefore, there are five statistically significant components in the actual data set and that the Kaiser's criterion overestimated these to seven.

The next step was to conduct another PCA restricting the factors to be extracted to five. This differed from the initial PCA where the decision was left to SPSS which initially extracted seven items based on their having eigenvalues greater than 1. The rotated component matrix is reproduced in Appendix 2. This had 68.7% of the total

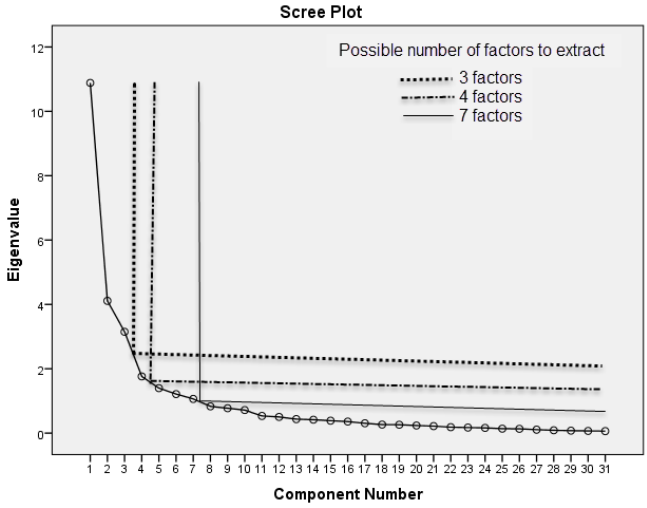

Figure 2. Scree plot

Table 1

Eigenvalues from PCA and parallel analysis

Component number	Actual eigenvalue from PCA	Criterion eigenvalue from Parallel Analysis	Decision
1	10.883034	1.685717	Accept
2	4.109788	1.593598	Accept
3	3.147663	1.518111	Accept
4	1.762700	1.454542	Accept

Table 1 *(Continued)*

Component number	Actual eigenvalue from PCA	Criterion eigenvalue from Parallel Analysis	Decision
5	1.397422	1.396918	Accept
6	1.213051	1.354558	Reject
7	1.062780	1.306277	Reject

Table 2

Total variance explained by the factors extracted

Component	**Number of items**	**Initial**			**Rotation**		
		Total variance	Percentage variance	Cumulative percentage	Total variance	Percentage variance	Cumulative percentage
1	12	10.883	35.107	35.107	7.883	25.428	25.428
2	8	4.110	13.257	48.364	5.326	17.181	42.609
3	4	3.148	10.154	58.518	3.360	10.840	53.449
4	4	1.763	5.686	64.204	3.195	10.306	63.756
5	3	1.397	4.508	68.712	1.536	4.956	68.712

variance in the construct explained by the five factors extracted. The breakdown of the factor loadings and variance explained by each factor are shown in Table 2.

DISCUSSION

Overall, five major components explained 68.7% of the total variance in the CSA advisory competence scale. Having been subjected to parallel analysis, these are considered more statistically reliable than the initial seven factors suggested using Kaiser's criterion. The components were subsequently interpreted. The first component is composed of 12 items such as competence in 'demonstrating site-specific nutrient management practices', 'cultivation of improved (climate-smart) varieties' and 'agricultural marketing strategies'. These explained 35% variance before rotation and 25% after rotation. Their initial eigenvalue was 10.88 which became 7.88 after rotation. The component corresponded closely to the first pillar of CSA and, hence named *Productivity and food security enhancement competencies*. The second component was made up of 8 items including ability to 'facilitate climate change resilience via participatory approach' and 'promote index based insurance' and was named

Resilience and adaptation competencies as it coincided with the second pillar of CSA. The component was responsible for about 13% of the variance which improved to about 17% after rotation. The eigenvalue also improved from 4.11 to about 5.33 after rotation.

Four variables combined to form the third factor which had initial and rotated eigenvalues of about 3.15 and 3.36 respectively. The variance explained was 10.15% and 10.84% before and after rotation respectively. Because it was made up of items including 'ability to communicate climate information through effective ICTs' and 'translate CSA information into local vernacular' it was named *Information management & facilitation competencies*. The fourth component was made up of four items including knowledge of environmental protection practices and ability to 'demonstrate zero/minimum tillage'. It was thence named *Mitigation and greenhouse gas (GHG) reduction competencies* in line with the third pillar and was responsible for 5.7% and 10.3% of the variance before and after rotation respectively. Its eigenvalue of 1.76 improved to about 3.2 after rotation. Finally, the fifth component was made up of 3 *Knowledge* items that had to do with understanding weather forecast, extreme weather events and enhancing adaptive capacity among vulnerable groups. Its eigenvalues were about 1.8 and 3.2 before and after rotation respectively. These correspond with a variance of 4.5% and 5% respectively. The complete list of constituent items is shown in Appendix 1.

It should be noted that after having components coinciding with the three pillars of CSA (Sala et al., 2016), this study has found an additional component that could aid in disseminating information and facilitating adoption of CSA technologies. This component is equally important as successful advisory services rely heavily on the competence of agents in soft skills such as communication and facilitation skills (Suvedi & Kaplowitz, 2016; Umar et al., 2017).

The factor that explained the highest proportion of variance in the CSA competence scale in Malaysia is the productivity and food security component. This has also been at the forefront of international climate change adaptation efforts and policies (FAO, 2010, 2013; Sala et al., 2016). This confirmed that in Malaysia, as in other climes, there is a defined need for EAs to have high capacity and proficiency in delivering advisory services on technologies that enhance farmers' productivity and promote food security in the society.

This was followed by resilience and adaptation component. This is also critical as farmers' resilience is vital to not just their agricultural enterprises but also ensures sustainable livelihood of the farm families (Devendra, 2012; Sala et al., 2016). Therefore, EAs should be competent in transmitting innovations that enhance climate change adaptation and resilience to the clientele. The next important component had to do with

information management and facilitation. The relevance of skills in communication and information technologies as well as information management among EAs in Malaysia and around the world has already been established (Suvedi & Kaplowitz, 2016; Umar et al., 2017). Communication skills are core extension competencies required in all field advisory services. Such soft skills should be mandatory in extension trainings and capacity development sessions.

Agricultural activities also contribute to GHG emissions, exacerbating global climate change in the process (FAO, 2013; Khatri-Chhetri et al., 2016; Sala et al., 2016). Hence, it is vital for the advisory services providers to be competent in delivering technologies capable of enhancing the mitigation of climate change and reducing environmentally harmful practices. Therefore, Mitigation and GHG reduction component is another important sub-construct of CSA advisory competencies in Malaysia.

IMPLICATIONS

The findings imply that CSA advisory competency among Malaysian extension workers has a five component structure. This should be taken into consideration when designing trainings and capacity development initiatives to make sure all aspects are covered in enhancing the competencies of extension workers in delivering CSA technologies and practices among the clientele. The findings of the study could also be beneficial in climate change adaptation and mitigation programmes and contemporary food security and agricultural development policies. This study should be replicated, by testing the scale in other locations and contexts. To aid theory development in this field, future studies should also look at the predictors and outcomes of competency in extension work performance, thereby situating the competency construct in a theoretical framework.

CONCLUSION

CSA practices are vital in climate change-prone farming communities. For effective adoption and utilization of such practices, the extension workers have an important role to play which requires them to be competent. After parallel analysis, the competency scale has been shown to be made up of five major components. Hence, the PCA is effective in reducing the dimensions of the CSA competency scale from 31 items to five components. Likewise, the parallel analysis has been proven to be the best extraction criterion in the PCA of CSA competencies among extension agents in Peninsular Malaysia.

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APPENDICES/ SUPPLEMENTARY DATA

Appendix 1: List of items in the scale

1. I can teach cover cropping technique
2. I can demonstrate site-specific nutrient management
3. I can demonstrate ISFM practices
4. I can advise on cultivation of improved (climate smart) crop varieties
5. I can demonstrate mixed cropping techniques (any of crop rotation, intercropping etc.)
6. I can demonstrate mixed farming techniques (any of agro-forestry, crop-livestock)
7. I can promote IPM practices for CSA
8. I can train on alternate wetting and drying (AWD)
9. I know how to disseminate eco-friendly agronomic practices
10. I can facilitate agricultural marketing strategies
11. I can disseminate rainwater harvesting technique
12. I can facilitate diversification of enterprises
13. I can facilitate climate smart rural development activities
14. I can facilitate climate change resilience via participatory approach
15. I can coordinate vulnerability risk assessments
16. I can promote index based insurance
17. I can evaluate adaptation options
18. I understand resilience to climate change
19. I can mobilize resources for adaptation
20. I understand basic agro-meteorological parameters
21. I am able to build linkages between CSA stakeholders
22. I can translate CSA information into practical guidance
23. I am able to communicate climate information through effective ICTs
24. I can translate CSA information into local vernacular
25. I know environmental protection practices
26. I can demonstrate zero/minimum tillage
27. I understand the impact of climate change on livelihoods
28. I know pro-poor options for low carbon development
29. I know how to enhance the adaptive capacity among vulnerable groups
30. I can report extreme weather events
31. I understand weather forecast

Appendix 2: Rotated component matrix of CSA competencies

	Component*				
	1	2	3	4	5
ACP22	**0.844**	0.208	0.021	0.172	0.045
ACP18_R	**0.833**	0.172	0.158	0.152	-0.005
ACP16	**0.807**	0.187	0.094	0.056	-0.053
ACP17	**0.788**	0.109	0.006	-0.047	0.279
ACP24	**0.784**	0.140	0.019	0.316	-0.053
ACP21	**0.776**	0.100	0.035	0.033	0.228
ACP19	**0.775**	0.047	0.046	0.321	-0.032
ACP23	**0.752**	0.143	0.009	0.330	-0.014
ACP20	**0.743**	0.086	0.054	0.179	0.099
ACP14	**0.730**	0.243	0.100	0.193	-0.204
ACP15_R	**0.681**	0.052	-0.016	0.265	-0.033
ACP25	**0.613**	0.348	0.064	-0.032	0.210
ACP8	0.171	**0.904**	0.043	-0.092	0.034
ACP7	0.113	**0.845**	0.204	-0.170	-0.078
ACP9	0.296	**0.796**	-0.164	0.072	0.016
ACP11	0.060	**0.792**	-0.095	0.293	0.144
ACP6	0.202	**0.784**	0.240	-0.188	0.001
ACP10_R	0.123	**0.752**	-0.162	0.373	0.075
ACP12	0.204	**0.675**	-0.186	0.430	0.026
ACP13	0.220	**0.639**	0.109	0.265	-0.234
ACP4	0.017	0.089	**0.865**	0.105	-0.008

Appendix 2 *(Continued)*

	Component*				
	1	2	3	4	5
ACP3_R	0.089	0.007	**0.843**	0.051	0.016
ACP5	0.073	0.055	**0.758**	0.084	0.159
ACP2	0.029	-0.105	**0.714**	0.303	0.032
ACP27	0.437	-0.010	0.163	**0.727**	0.111
ACP26	0.411	0.070	0.280	**0.721**	0.027
ACP28	0.364	0.136	0.227	**0.700**	0.013
ACP29	0.301	0.232	0.299	**0.660**	0.040
ACP1	0.015	-0.114	0.431	0.178	**0.687**
ACP31	0.141	-0.037	0.227	0.065	**0.677**
ACP30_R	0.031	0.120	-0.260	-0.055	**0.490**

*Component: 1 = Productivity and food security enhancement; 2 = Resilience and adaptation; 3 = Information management & facilitation; 4 = Mitigation and greenhouse gas (GHG) reduction; and 5 = Knowledge transfer

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Practiced Culture Toward Firm Competitiveness Performance: Evidence from Indonesia

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ABSTRACT

Company values and beliefs are the grounds on which a company can develop their strategy, build their structure, and establish their processes. These values and beliefs manifest in their business practices and become critical aspects for the company to attain their goals. In small and medium entrepreneurial business, culture becomes a vital role that drives their success in limited capacity and resources. We estimated our model using the partial least squares method and gathered data from 137 digital entrepreneurial firms within six months using both offline and online methods, using the Hofstede Multi Focus Model as a framework to attribute the practice-culture. The results show that there are three dominant practices reflected in start-ups that have a significant relationship with organizational competitiveness and performance: results-oriented, pragmatic approach to the customer, and professionalism. This study contributes to a more comprehensive understanding of entrepreneurial firm practices from the human resources and organizational perspectives.

Keywords: Competitiveness, culture, customer orientation, Hofstede multi-focus model, organizational effectiveness, organizational focus, performance

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INTRODUCTION

The high penetration and high growth of startup-companies in Indonesia has recently been gaining attention. There are over 2,000 start-up companies in Indonesia currently, which makes Indonesia in the top five start-up company countries worldwide (Google & Temasek, 2015; Tech in Asia, 2017). Every day there is a new business created

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that has never been heard of before. It also has come to the Indonesian government's attention and focuses, as 90% of businesses in Indonesia are categorized as small and medium companies. Indonesia has an opportunity to leverage this condition to open a new opportunity for acceleration in economic development through improved per capita income, more employment, and by making Indonesia more innovative and competitive when facing the regional and global markets by having sustainable firm performance and competitiveness (Simes et al., 2015).

Start-up companies are defined as temporary organizations in search of a scalable, repeatable, profitable business model (Blank & Dorf, 2012). It is a temporary organization because it has a high risk with a low level of survivability. After a certain time, it either has died or has become an established firm in search of a business model. Start-up firms work with an uncertain environment wherein they try to produce an innovative product or approach the unproven market. Most start-up companies are operating in small teams that develop products and focus on growth and customer acquisition (Burke, 2016).

The failure rate for startups is between 30%–90%, which is different from other industries and their reasons for failure. Many of them just do not have an exit (acquisition, IPO, others), or they have an inability to develop a product that the market needs or they fail as a result of poor leadership or management (CB Insights, 2014; The Statistic Brain Institute, 2013; Xavier, 2012). This leadership and management is reflected in team composition and incompetence, which all can be linked to culture (Brush, 2014).

Studies on start-up culture have received much attention recently not only because this new and small highly innovative technology company can "disrupt" the business world, but also because the research focus concerning the organizational culture is still limited. Shinichi et al. (2007) argued that this limitation was caused by two factors. First, corporate culture has tacit, ambiguous, and difficult to observe aspects that make researchers avoid quantitative research. Second, it is challenging to understand the significant positive effect on organizational culture in relation to firm performance, since some companies may not have an adaptive or defective culture that harms productivity.

This paper focuses on three essential aspects. First, it focuses on understanding and discussing the most valid start-up culture using Hofstede's Multi Focus mode. Second, it aims to understand and discuss the relationship between an organizational culture with firm competitiveness and firm performance. Lastly, it examines the mediating role firm competitiveness has on the relationship between organizational culture and firm performance.

LITERATURE REVIEW

Organizational Culture

Many scholars have acknowledged that organizational culture significantly determines organization behavior and performance (Gordon & Ditomaso, 1992;

Kotter & Heskett, 2011; Lee & Yu, 2004). For several top companies in the world it is not just important, but it is everything (Cava, 2015; Lagace, 2002). Organizational culture also acts as a driver for competitive advantage (Madu, 2011). The ten years of empirical study done by Kotter and Heskett (2011) summarized that: (1) the firm performance to enhance culture had a significant effect on overall performance when comparing it to an unenhanced culture; (2) organization culture was a major factor in determining the success of the company in the future because it had a tendency for business adaptation in making strategic or tactical changes; (3) inappropriate behavior caused by organizational culture was a latent danger, even if the company was full of reasonable and intelligent people; and 4) although organization culture is complex, difficult to change, and required leadership, it could be performance enhancing. Corporate culture also has a significant impact on the organization's long-term sustainability, economic performance, and outcomes such as profitability, turnover, and commitment (Câmpeanu-Sonea et al., 2010; Tidball, 1988).

Organization culture means the values, ideology, philosophy, beliefs, ritual, symbol, and norms that affects organizational performance (Bourantas & Papadakis, 1996). Organizational culture also defines the way in which members of an organization relate to one another, their work, and the outside world in comparison to others (Hofstede et al., 1990). As the organizational culture observation is hard, understanding the manifestation of culture is critical (Shinichi et al., 2007). Culture is manifested in values, rituals, heroes, symbols, and practices. Symbols are words, gestures, pictures, or objects that are recognized. *Heroes* are a person, real or imaginary, who possess characteristics for a model of behavior. *Ritual* is a collective activity that is technically superfluous to reaching the desired end. *Value* is a broad tendency to prefer certain states of the affair to others. These *symbols*, *heroes,* and *rituals* are only visible in terms of *practices* from the outside observer. However, it is invisible and lies precisely only in the way these practices are interpreted by the insider. In the organizational context, *values* represent corporate heroes (founders and significant leaders), and it influences organizational culture. But the way this culture affects a member of the organization is through shared practice (Hofstede, 1998; Hofstede et al., 2015).

Furthermore, the cross-organizational factor analysis study on 20 working units in two countries conducted reveals six clear and mutual independent dimensions of perceived practices (Hofstede et al., 1990). Although not all dimensions are relevant to every country (Bös et al., 2011) and there are critics (McSweeney, 2002), Hofstede's dimensions are still some of the most frequently used (Tsui et al., 2007). The six dimensions that were based on 93 empirical studies published in the 16 leading management journals are explained below.

Process- vs. Results-Oriented (mean vs. goal).

In a results-oriented culture, people have a tendency to achieve a specific goal even though it involves substantial risks. In a process-oriented culture, people have a tendency to focus on how the work is completed. This is related to organizational effectiveness.

Normative vs. Pragmatic (internally vs. externally). This is related to customer orientation wherein a pragmatic or external focus organization emphasis is on meeting customer needs. While normative, people have a tendency to know what is right for the customer.

Loose vs. Tight Control (easy vs. strict disciplines). Loose work disciplines tend to be innovative, informal, self-managed, and fund working culture, while tight control is more cost-conscious, conservative, and has a lot of procedures and controls.

Parochial vs. Professional (local vs. professional). In professional, there is diversity, outward looking, and many years of thinking ahead, while local will focus on short-term, personal loyalty.

Open System vs. Closed System. This is related to how open an organization is to new customer and diversity.

Employee- vs. Job-oriented. This aspect concerns people as either assets or people as task completion tools.

Firm Competitiveness

Competitiveness originates from the Latin word, "*computer"*, meaning involvement in the business rivalry for markets (Bhawsar & Chattopadhyay, 2015). The competitiveness concept can be traced back to classical theory (Smith, 1776) work on 'absolute advantage' that suggests a nation specializes on labor to produce their specific advantage where its production is going to be most efficient compared with other nations.

Competitiveness is a complex subject that covers a range of studies at various levels. It has been conceptualized and measured at the country, industry, cluster, and firm levels with different dimensions and approaches. Its concept development cannot be separated from the researchers that focuses on the 5Cs: competition, competitive strategy, competitive advantage, competitiveness, cluster, and creating shared value (Solvell, 2015).

In the strategic management literature, understanding firm competitiveness, firm performance, and competitive advantage are fundamental. Many times these are used interchangeability, which could cause bias in definition and understanding. Garelli (2003) defined firm competitiveness as synonymous with a company's long-run profit performance while also compensating their stakeholders. It is the capability of a firm to sustainably fulfill its dual purposes: meeting customer requirements at a profit. This capability is realized through an offering of the market goods and services, where a customer's value is higher than those offered by competitors are and achieving competitiveness requires the firm's continuing adaptation to changing social and economic norms and conditions (Chikan, 2008). We can draw several attributes based on the above definition

that firm-level competitiveness will have innovation, productivity, efficiency, and profitability factors comparable with another firm in the specific market. This research tends to agree on the widely accepted firm-level competitiveness of a company that is its ability to design, produce, and market its products superior to those provided by its competitors, considering both the price and non-price factors (Roy, 2010).

Firm Performance

Firm performance is central to strategic management study, as strategic management focuses on performance improvement (Venkatraman & Ramanujam, 1986). Despite its importance, the firm performance measurement system has shortcomings and is dysfunctional (Neely, 2007). Moreover, over the last 100 years, there are many performance measurement systems that have been developed, from the "management by remote control" performance measurement system developed by General Electric in 1951, to the newer Balanced Scorecard that was introduced in 1984. These performance measurement systems have some key characteristics that help organizations to identify measure to assess their firm performance (Neely, 2007): (1) it provides a balanced picture of the business. It measures financial and non-financial measures, internal and external measures, and efficiency and effectiveness measures; (2) a succinct overview of the organization's performance through simplicity and intuitive logic that can be understood by users and easily applied to their organizations; (3) multidimensional that measures all areas of performance that are critical to the organization's success; (4) it maps all possible measures of an organization's performance across the organization's functions and through its hierarchy, encouraging the congruence of goals and actions; and (5) the results are a function of the determinants. This demonstrates the need to measure the results and their drivers so that the performance measurement system can provide data for monitoring past performance as well as planning future performance.

The firm performance metric is complex and multidimensional (Gerba & Viswanadham, 2016). Other scholars (Venkatraman & Ramanujam, 1986) have proposed that there should be three domains of business performance in strategy research: financial performance, operational performance, and operational effectiveness performance. The previous study by Murphy et al. (1996) provided eight dimensions of firm performance efficiency, growth, profit, size, liquidity, success failure, market share, and leverage. From these eight dimensions, efficiency, growth, and profit were the most common dimensions used in entrepreneurial studies.

These metrics are critical for startups to set goals and track progress. Moreover, knowing these metrics allows start-ups to improve and make major decisions (e.g., product iterations, raising capital, pivots) (Ehrenberg, 2014; Suster, 2011; Vaughn, 2011). The performance metric in the start-up company is difficult for two reasons. First, newly established start-ups do not

have any data, since they are new. Second, if there is data, their measurement needs to align with the sector and environment in which they operate (e.g., in the search engine campaign, click-through rate and conversion rate are very important, which is different than in application development, which depends on churn rate). Nevertheless, there is a common performance metric that is used from small firms to large enterprise that is related to sales and financials. The number of customers and their increments determine customer acquisition and retention of their customer, while revenue and cost determine the profit of these start-ups.

MATERIALS AND METHODS

Data Collection

This research used a random sampling method of digital-startup companies with a sampling frame of start-up companies that participated in an exhibition in between November 2016 – April 2017. An onsite questionnaire gathering was done at the management level of these start-up companies. A total of 137 companies responded to this study questionnaire.

Measurement Scale

The questionnaire comprises three sections: company profile information (6 questions), respondent profile (6 questions), and quantitative questions (32 questions) on organizational culture, environmental dynamism, firm performance, and competitiveness. The company profile identifies firm age, size, holdings status, funding source, and their achievements, while respondent profile comprises their age, educational background, and their career background. The quantitative questions were constructed to capture the start-up's practiced culture, the respondents' perception of their firm's performance and competitiveness in the market, and the environment in which they operated and competed. The quantitative questions were probes using a 4-point Likert-type scale that measures agreement (1: Strongly Disagree to 4: Strongly Agree) for organizational culture construct practice, and comparative performance (much higher-much lower) for firm performance and competitiveness.

Analysis Technique

Smart PLS 3.0 was used for the Structural Equation Modeling (SEM) analysis with the partial least squares (PLS) estimation technique (Ringle, Wende, & Becker, 2015). SEM analysis is a second-generation multivariate analysis that allows for simultaneous assessment of multiple independent and dependent constructs, including multi-step paths and mediating and moderating effects. SEM can observe latent variables (LV) with high complexity. It can also examine non-normally distributed data with all kinds of measurement scales (interval, nominal, ordinal, and ratio) with a small sample number, and is proven and widely used (Ghozali & Latan, 2014).

SEM works with two models for reporting: (1) the measurement models (outer model), which describe the relationship between the latent variables and their indicators; and (2) the structural

model (inner model), which outlines the relationships between the latent variables. PLS estimates loading and path parameters between latent variables and maximizes the variance explained for the dependent variables (Hair et al., 2016).

In several studies, the constructs that the investigation wishes to examine are complex and operationalized at a higher level of abstraction. This higher-order construct or hierarchical latent variable model, or hierarchical component model, are explicit representations of multidimensional constructs that exist at a higher level of abstraction and are related to other constructs at a similar level of abstraction, completely mediating the influence from or to their underlying dimensions (Chin, 1998). Smart PLS deals with this higher construct using the Two-Stage Approach (Afhanorhan, 2014; Ghozali & Latan, 2014; Hair et al., 2016; Wilson & Henseler, 2007) by: (1) getting the latent variable scores by running a PLS algorithm from the latent variable construct with its indicators; and (2) using the latent variable score as an indicator for higher order constructs and another construct within the model for structural model evaluation. Combining these two approaches between the measurement report model and the two-stage approach, we were able to report the higher-construct and complex models.

RESULTS AND DISCUSSIONS

Results

Demographic data of the respondents shows that there were young, small, and medium companies (based on employee size). Small and medium companies represented 88% of the respondents, with 78% of respondents having a company age of less than three years. From the funding stage, the companies were in the pre-seeding and seeding stages that represented 78.8% of respondents. Although they were in the early stage, 22.63% of respondents had either international, regional, or local competition achievement.

The descriptive analysis shows that these startups have a tendency to be goal-oriented, customer oriented (pragmatic), and professional (Mode=3 for all respective LV indicators). Two indicators presented strong agreement from the respondents (Mode=4) that their main objective was to fulfill customer requirements (COE1), and open communication was an important aspect of a co-working relationship (CAPR3).

The repeated indicator approach was used to deal with the high-order construct. The outer and inner model analyses were also conducted, where four indicators and one latent variable were removed since they had below 0.7 indicator reliability and did not pass the discriminant validity (HTMT test).

The goal-oriented factor that reflected organizational effectiveness (COE) and customer orientation (CCO) had the highest path coefficient reflected from a corporate culture with COE (β=0.814, $p<0.001$) and CCO (β=0.851, $p<0.001$). The bootstrap analysis result shows a full mediation effect between organizational cultures (CULTURE) with the firm performance

(FP) through firm competitiveness (FC). The CULTURE significantly predicts the FC (β=0.325, p<0.001) and FC significantly predicts the FP (β=0.485, p<0.001), while the relationship between CULTURE and FP is insignificant (β=0.136, p<0.144). There is also a significant indirect effect between CULTURE and FP (β=0.167, p<0.003).

DISCUSSION

There is no good or bad culture; they are rather either functional or dysfunctional cultures (Waisfisz, 2015). The four cultural dimensions of six (process vs. result, parochial vs. professional, loose vs. tight and normative vs. pragmatic) relate to the type of work the organization does and the type of market in which it operates (Hofstede et al., 2015).

The questionnaire feedback from these start-up companies aligns with the majority of the typical four cultural behaviors feedback from the same company with the same type of work in which they operate. The research and development units or service units scored more result-oriented; high-tech units scored professional; those working in the competitive markets scored pragmatically. The exception was for loose vs. tight (organizational control), where the respondent showed inconsistency in their response concerning loose vs. tight behavior in their organization. The respondent had a tendency for organizational, informal aspects (loose), but they were tight with cost control and standard operating procedures (SOP).

Reflecting on the organizational life cycle, these respondents are in the existence and survival stage. The existence stage (Churchill & Lewis, 1983) or the entrepreneurial (Quinn & Cameron, 1983) or birth stage (Lippitt & Schmidt, 1967) is characterized by a firm's struggle to achieve viability. Decision-making is in the hands of one or a few members, while ownership is concentrated. The structure is simple, as most firms are quite small regarding revenues and number of employees. Their focus is on speed innovation (Lester et al., 2008). At the survival stage, growth is the primary goal for many firms (Adizes, 1979; Downs, 1964). Organizations move from a simple structure to one that emphasizes the role of managers and promotes the division of labor.

The organization will be more successful if they fit with their primary task. The success of the startup's company should fit with their organizational life cycle stage, which in this research respondent should focus on innovating and understanding customer requirements. This research posits that this fit-to-cycle can increase the life expectancy of a start-up company, since the top reason for start-up company failure is developing a product with no market need (CB Insights, 2014).

Organizational effectiveness (COE) therefore becomes a priority that start-up companies need to focus on. The weight of the SOE from the SEM analysis is the highest, followed by the CCO and CFOC. Organizational effectiveness is the concept of an organization achieving

the outcomes the organization intends to produce. The customer orientation (CCO) has been criticized to inhibit the innovation processes (Racela, 2014). Research from Govindarajan et al. (2011) showed that the relationship between market orientation and innovation were based on the separation between the type of customer orientation (mainstream and emerging) and type of innovation (sustaining and disrupting), and how they correlated together. The results showed that only emerging customer orientation is positively related to disruptive innovation. The disruptive innovation is typically cheaper, simpler, smaller, and frequently more convenient to use. It provides new customer value (Christensen, 1997). The start-up company can be more relevant, as their understanding of the client requirements become a critical capability despite the limited resources they have.

The full mediation of FC between functional cultures with the firm performance might be explained through a capability-based view of an organization, where, in this "startup" stage, the company focus is on the development of the capacity to understand their customer to develop their product. If necessary, they pivot, which is a structured course correction designed to test a new fundamental hypothesis about the product, strategy, and engine of growth (Ries, 2011), before they fall into what Marmer and Bjoern (2011) called "premature scaling", which the most common reason for a startup to perform worse. Extending further from the same report: Startups that pivot once or twice raise 2.5x more money, have 3.6x better user growth, and are 52% less likely to scale prematurely than startups that pivot more than two times or not at all.

CONCLUSION AND RECOMMENDATIONS

The conclusions and recommendations for this study are as follows: (1) The organization culture is an important aspect even in the early stage of start-up company. It might not be in the form of a formal statement, but is shows in the company attitude in business practice. (2) In the early stages, a startup company needs to focus on organization effectiveness, especially in achieving their goal, focus on the customer, and being professional. (3) The practice culture will drive the firm competitiveness (ability to design, produce, market its products superior to those provided by its competitors, considering both the price and non-price factors), which eventually will drive the firm performance. It will not drive performance directly as they are in the early stage, but a startup company should develop its competitiveness instead of chasing firm performance.

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Survival through Strategic Performance Measurement System in Coal Mines

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ABSTRACT

The research is about performance measurement system (PMS) in coal mine organizations. The purpose of this research is to test the strategic performance measurement system (SPMS) framework through a quantitative approach and to assess the level of importance of variables in the SPMS framework by examining the effect of variables of organizational culture (OCL) on SPMS mediated by activity-based costing system (ABCS) and flexibility strategy (FLS), the effect of OCL on SPMS, the effect of ABCS on organizational performance (OPF), the effect of FLS on OPF and finally the effect of ABCS on OPF. The novelty of this research is to put the ABCS and FLS as mediating variables instead of independent variables as previous researches. The framework is hypothetic-deductive research. Primary data was collected through questionnaires. A number of 150 samples of the 250 questionnaires disseminated to both coal mine companies and mining contractors were collected and processed using SEM Lisrel version 8.7. The sample population was fairly distributed to coal mine organizations as unit of analysis. The results, using SEM Lisrel, OCL as an exogenous variable is positively related to both ABCS and FLS but does not affect SPMS directly. OCL is fully mediated by both ABCS and FLS. ABCS is positively related to both SPMS and OPF. FLS is positively related to SPMS but does not affect OPF directly. The SPMS is positively related to OPF.

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INTRODUCTION

Low demand of coal since 2012 due to oversupply and continued depressed price of coal has made coal mine organizations difficult to improve financial performance (PwC Report, 2015). Due to the significant drop in the financial performance, Indonesian coal mine organizations are struggling to survive in a low commodity price. Owing to poor financial performance, in 2014, many small and medium organizations particularly local companies had collapsed caused mainly by low commodity prices and poor operational performance. The purpose of this research is to propose a strategic performance measurement system (SPMS) as strategic initiatives as an alternative solution and early warning system for improving the economic viability of coal mining companies which are now critical, to remain positive in a low commodity price or at least can sustain survival.

According to Wentzel (2012) there are some significant factors affecting the performance of coal mine organizations such as operational factors focusing on improving productivity as a basis for improving financial performance. Therefore, performance drivers of both operational and cost factors have been as variables to be investigated in this research. This research combines these factors of both operational and cost factors with organizational culture predicted as a determinant of the effectiveness of SPMS. With regard to operational factor, this research uses the term flexibility strategy as a variable which is used in the mining industry to optimize a mine plan considering the cost of an activity. With regard to cost factors known as life-cycle cost management as explained by Wentzel, this research uses more specific term called as activity-based costing system (ABCS) which is a costing methodology identifying activities in an organization. The purpose of this research is to assess the level of importance of variables in the SPMS framework by examining the effect of variables of organizational culture (OCL) on SPMS mediated by activity-based costing system (ABCS) and flexibility strategy (FLS), the effect of OCL on SPMS, the effect of ABCS on organizational performance (OPF), the effect of FLS on OPF and finally the effect of ABCS on OPF.

LITERATURE REVIEW

This literature review clarifies the associated theories of organizational performance, strategic performance measurement system, activity-based costing, flexibility strategy and organizational culture.

Organizational Performance

According to Richard and Devinney (2009) organizational performance encompasses three specific areas of outcomes; financial performance, market performance and shareholder return. According to Venkatraman and Ramanujam (1986), indicators to measure organizational performance is derived from perspective of financial performance, operational performance, and organizational effectiveness. Financial performance is narrowest conceptualization of business performance which centers

on the use of simple outcome-based financial indicators which are assumed to reflect the fulfillment of the economic goals. Operational performance, which is non-financial performance, a broader domain of performance construct in recent strategy research, is indicated by market share covering; innovation, quality of product and results of process (productivity and work satisfactory). Organizational effectiveness, which is a domain reflecting strategic management, covers the overall measurements compared to competitors and also compared to the organizational objectives.

Strategic Performance Measurement System (SPMS)

Neely and Najjar (2006) defined a performance measurement as the process of quantifying the efficiency and effectiveness of action. Performance measurement is a topic which often discussed and a complex issue which normally incorporates at least three different disciplines: economics, management and accounting (Tangen, 2004). According to Teh et al. (2015), the term "strategic performance measurement system" in manufacturing companies is related to the sustainable process with minimum impacts on environment as well as minimum energy, cost and resources used. Interest in performance measures has grown, as evidenced by the large portion of literature investigating some aspects such as "benchmarking", "total quality" measures and "balanced scorecards" as new performance measurement systems. This trend has forced organizations to improve their performance to survive in their environment and industries. Furthermore, Folan and Browne (2005) suggested that recommendations concerning performance measurement could be divided into two core areas, namely performance measures, and performance measurement framework and system design.

Ideally, a well-developed, broad-based performance measurement system could be used to improve the organizations strategic focus (Kaplan & Norton, 2000). Prior researches have approached on the possible factors from the narrower perspective to the wider perspective. In the narrower perspective studies, performance has been tested to a single or few factors, for example, Siu (2000) found that there was a relationship between marketing practices and company performance, while Lee et al. (2001) found that close business relationships positively affected business performance. On the contrary, in the wider perspective studies, the researchers tested a combination of factors to business performance.

Activity-Based Costing (ABC) System

According to Dixon et al. (1990), the problems with existing performance measurement system are still based on traditional cost accounting principles. Previous studies have examined ABC implementation from the perspectives of organizational structure, contextual and process factors, and cultural influences (Major & Hopper, 2005). These studies provide the reasons why companies adopted

ABC, and most of the results reveal that decision usefulness, organization support, and links to performance measurement influenced the adoption and implementation of ABC. Activity-based costing (ABC) is a costing methodology which identifies activities and assigns the cost of each activity with resources to all products and services. ABC assigns more indirect costs (overhead) into direct cost. According to Turney (1992), ABC is defined as a method of measuring the cost and performance of activities and cost objects.

Flexibility Strategy

The nature of mining industry is high risk in addition to very large capital is required upfront for the construction of facilities including processing plant, development of mine and transport infrastructure. Recently many mathematical techniques have been applied to optimize mine plan including mining sequence, volume to be mined, and quality or cut of grade using deterministic commodity prices (Caccetta & Hill, 2003).

An approach to mining project evaluation is the flexibility approach which emulates a strategy that a real operating mine would undertake over its mine life by modifying the mine plan in each new period in response to the latest information on commodity price. Also, the flexibility approach can estimate the mine project value more accurately by recognizing additional value. This flexibility strategy is to improve operational performance continuously in facing rapidly changing environment causing uncertainties of commodity prices.

Flexibility strategy is basically defined as an optionality of a decision-making process of both reactive and proactive to determine the quantity, the quality of reserves to be mined and what the costs incurred for extracting the quantity.

Organizational Culture

Organizational culture has been recognized as an important essential influential factor in analyzing organizations to establish competitive advantages (Cameron & Quinn, 2005) and its impact on organizational performance (Marcaulides & Hech, 1993). Cameron and Quinn (2005) emphasized that the success of organizations was not only determined by specific external conditions but also with company values. According to Daft (2010), culture can play an important role in creating an organizational climate which enables learning and innovative response to challenges, competitive threats, or new opportunities. Culture is a major determinant of an organization's ability. Any organization has a set of values which characterize how people behave and how the organization carries out day-to-day business. Thus, according to Daft (2010) corporate values as the central dimension of an organizational culture and have been recognized as powerful influences differentiating one firm from another. In this research, the organizational culture is defined as a driving force of the engine which moves people to action and is as a powerful lever which drives and controls organizational behavior and promote specific patterns of behavior (Soltani et al., 2011).

MATERIALS AND METHODS

Research Design

Research design is quantitative research based on a framework of strategic performance measurement (SPMS). A structured questionnaire survey was developed to collect quantitative data. The purposes of the research are to test the strategic performance measurement framework through a quantitative approach, and to assess the level of importance of the variables in the SPMS framework by examining variables of organizational culture (OCL), activity-based costing system (ABCS), flexibility strategy (FLS), strategic performance measurement system (SPMS), and organizational performance (OPF) which are based on the framework in Figure 1. The framework is hypothetic-deductive research. Primary data was collected through questionnaires. A number of 150 samples of the 250 questionnaires disseminated to both coal mine companies and mining contractors were collected and processed using SEM Lisrel version 8.7. Therefore, the response rate is 60%. The sample population was fairly distributed to coal mine organizations as unit of analysis with unit of observation consisting of senior positions.

The framework for this research is developed by synthesizing from previous literatures and researches derived from the relationships among the variables and how the variables relate to each other. This hypothetic-deductive research that starts with a general theory and then apply this theory to a specific case (Sekaran & Bougie, 2011). All hypotheses development deducted from previous literatures are presented in the framework in Figure 1.

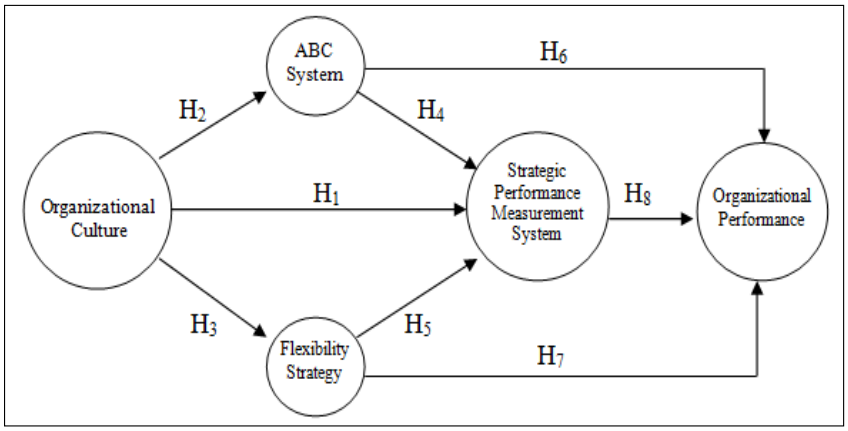

Figure 1. Framework of strategic performance measurement system

RESULTS AND DISCUSSIONS

Validity and Reliability Test

The validity tests are indicated with the correlation (r) of each indicator and were calculated and compared with the r-value from the table. For the sample size of 150 respondents, the r-value from the table is 0.16. An item was valid if the calculated r-value was higher than standard r-value from the table. All of the items in the questionnaire met this requirement as shown in Table 1.

Table 1

Validity test of all indicators of latent variables

No. of Indicator	Item-Total Correlation	r table Value	Variable
OCL1	0.812	0.16	Organizational Culture
OCL2	0.844	0.16	
OCL3	0.850	0.16	
OCL4	0.840	0.16	
OCL5	0.799	0.16	
ABC1	0.948	0.16	Activity-Based Costing System
ABC2	0.933	0.16	
FLS1	0.867	0.16	Flexibility Strategy
FLS2	0.858	0.16	
FLS3	0.867	0.16	
FLS4	0.874	0.16	
SPMS1	0.833	0.16	Strategic Performance Measurement System
SPMS2	0.862	0.16	
SPMS3	0.883	0.16	
SPMS4	0.819	0.16	
SPMS5	0.914	0.16	
OPF1	0.807	0.16	Organizational Performance
OPF2	0.829	0.16	
OPF3	0.856	0.16	
OPF4	0.862	0.16	

To test the reliability of multiple-item scale for each variable is conducted by calculating the Cronbach Alpha. The Cronbach Alpha was used to test the internal consistency of the data. The Cronbach Alpha of each variable should be higher than 0.60 (Sekaran & Bougie, 2011) to indicate that the instruments of this research model are reliable. All variables used in this research are reliable as shown in Table 2.

Table 2

Reliability test of each variable

Variable	Cronbach Alpha	Reliability
Organizational Culture (OCL)	0.884	Reliable
Activity-Based Costing System (ABCS)	0.866	Reliable
Flexibility Strategy (FLS)	0.887	Reliable
Strategic Performance Measurement System (SPMS)	0.911	Reliable
Organizational Performance (OPF)	0.858	Reliable

Quantitative Analysis Using Structural Equation Modeling

A number of 150 samples was processed using Lisrel Version 8.7. In this research there are five latent variables those were Organizational Culture (OCL), Activity-Based Costing System (ABCS), Strategic Performance Measurement System (SPMS), Flexibility Strategy (FLS) and Organizational Performance (OPF).

SEM analysis consists of Model Fitness Testing, Measurement Model Testing and Confirmatory Factor Analysis (CFA), and Structural Model Testing or Hypotheses Testing.

Model Fitness Testing

The result of the model fitness testing can be seen in the GOFI in Table 3.

Table 3

Goodness of Fit Index (GOFI) of model fitness test

GOFI Indicators	GOFI Indicators Explanation	Standard of Fitness	Calculation Result	Conclusion
RMSEA	Root Mean Square Error of Approximation	≤ 0.08	0.037	Fit is Good
NFI	Normed Fit Index	≥ 0.90	0.98	Fit is Good

Table 3 *(Continued)*

GOFI Indicators	GOFI Indicators Explanation	Standard of Fitness	Calculation Result	Conclusion
NNFI	Non-Normed Fit Index	≥ 0.90	1.00	Fit is Good
CFI	Comparative Fit Index	≥ 0.90	1.00	Fit is Good
IFI	Incremental Fit Index	≥ 0.90	1.00	Fit is Good
RFI	Relative Fit Index	≥ 0.90	0.98	Fit is Good
Std RMR	Standardized Root Mean Square Residual	≤ 0.05	0.036	Fit is Good
RMR	Root Mean Square Residual	≤ 0.05	0.019	Fit is Good
GFI	Goodness of Fit Index	≥ 0.90	0.90	Fit is Good
AGFI	Adjusted Goodnes of Fit Index	≥ 0.85	0.85	Fit is Good

As shown in Table 3, all the GOFI indicators reflected good fitness so it could be concluded that the data for the measurement and structural model testing had appropriately supported the research model.

Measurement Model Testing

The result of measurement model testing of first order latent variable *Organizational Culture* as exogenous variable is reflected by five observed variables *OCL1-OCL5*; first order latent variable *Activity-Based Costing System* as endogenous variable is reflected by two observed variables ABCS1-ABCS2; first order latent variable *Flexibility Strategy* as endogenous variable is reflected by four observed variables FLS1-FLS4; first order latent variable *Strategic Performance Measurement System* as endogenous variable is reflected by five observed variables SPMS1-SPMS5; first order latent variable *Organizational Performance* as endogenous is reflected by four observed variables OPF1-OPF4. The result of measurement model testing and confirmatory factor analysis of first order of five latent variables can be seen in the following Figure 2.

As shown in Figure 2, all the loading factor of each indicators shows *Standardized Loading Factor (SLV)* above 0.7 and the Error Value below the SLV. It could be concluded that the five latent variables could be processed simultaneously into the structural model testing.

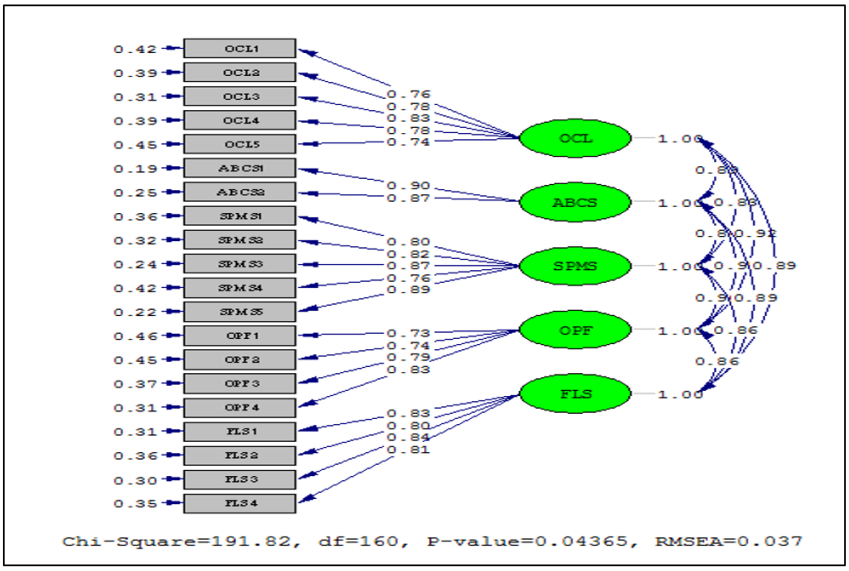

Figure 2. Path diagram of first order latent variables

Structural Model Testing or Hypotheses Testing

The result of structural model testing can be seen in the Table 4 below.

Table 4

Result of hypotheses significance testing based on structural research model testing

Hypotheses	t-value	Standard Coefficient	Conclusion
H1: Organizational culture will positively affect strategic performance measurement system	-0.32	-0.11	H1 is not accepted, t- value -1.96 < t < 1.96; there is no significant effect
H2: Organizational culture will positively affect activity-based costing system	12.34	0.94	H2 is accepted, t-value > 1.96; there is significant positive effect
H3: Organizational culture will positively affect flexibility strategy	10.84	0.92	H3 is accepted, t-value > 1.96; there is significant positive effect
H4: Activity-based costing system will positively affect strategic performance measurement system.	2.18	0.57	H4 is accepted, t-value > 1.96; there is significant positive effect
H5: Flexibility strategy will positively affect strategic performance measurement system	2.41	0.47	H5 is accepted, t-value > 1.96; there is significant positive effect

Table 4 *(Continued)*

Hypotheses	t-value	Standard Coefficient	Conclusion
H6: ABC system will positively affect organizational performance.	4.65	0.73	H6 is accepted, t-value > 1.96; there is significant positive effect
H7: Flexibility strategy will positively affect organizational performance.	-0.09	-0.01	H7 is not accepted, t-value -1.96 < t < 1.96; there is no significant effect
H8: Strategic performance measurement system will positively affect organizational performance.	2.20	0.28	H8 is accepted, t-value > 1.96; there is significant positive effect

Result of structural model testing is drawn in the Figure 3 and 4 showing the diagram of standardized solution structural model and t-value.

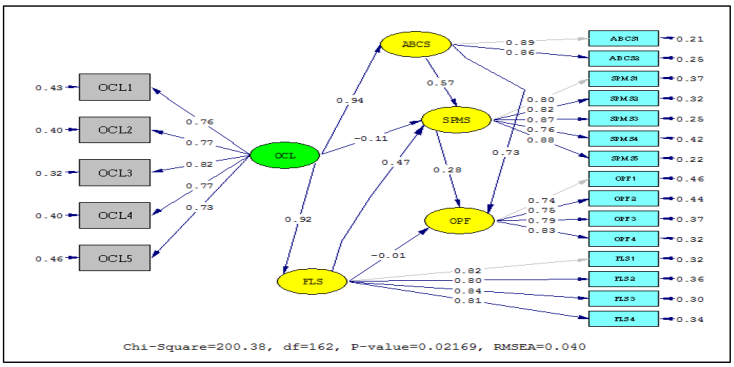

Figure 3. Diagram of structural model with standardized solution

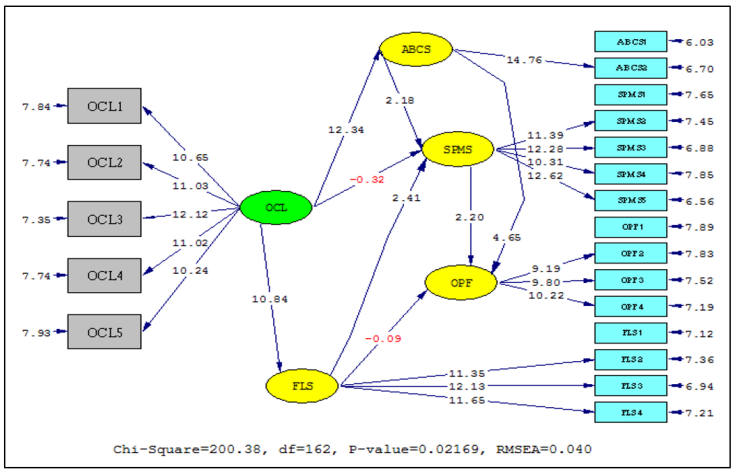

Figure 4. Diagram of structural model with t-value

Structural equation obtained from the model in Figure 1 can be summarized as follows:

$M_1 = \beta_0 + \beta_2 X_1 + \varepsilon$

$M_2 = \beta_0 + \beta_3 X_1 + \varepsilon$

$Y_1 = \beta_0 + \beta_1 X_1 + \beta_4 M_1 + \beta_5 M_2 + \varepsilon$

$Y_2 = \beta_0 + \beta_8 Y_1 + \beta_6 M_1 + \beta_7 M_2 + \varepsilon$

where,

Y : Dependent variable; Y_1 = SPMS, Y_2 = OPF

SPMS : Strategic Performance Measurement System

OPF : Organizational Performance

β_0 : Axis intercept

β_n : Regression coefficient; n = 1, 2, 3, 4, 5, 6, 7, 8

X : Independent variable ; X_1 = OCL

OCL : Organizational Culture

M : Mediating variables; M_1 = ABCS, M_2 = FLS

ABCS : Activity-Based Costing System

FLS : Flexibility Strategy

ε : error

Coefficient value of direct effect resulted from SEM Lisrel is as follows:

OCL ---> SPMS $\beta_1 = -0.11$

OCL ---> ABCS $\beta_2 = 0.94$

OCL ---> FLS $\beta_3 = 0.92$

ABCS ---> SPMS $\beta_4 = 0.57$

FLS ---> SPMS $\beta_5 = 0.47$

ABCS ---> OPF $\beta_6 = 0.73$

FLS ---> OPF $\beta_7 = -0.01$

SPMS ---> OPF $\beta_8 = 0.28$

Indirect effect of latent variable SPMS:

OCL ---> ABCS ---> SPMS = 0.94*0.57 = 0.54

OCL ---> FLS ---> SPMS = 0.92*0.47 = 0.43

Indirect effect of latent variable OPF :

OCL ---> ABCS ---> OPF = 0.94*0.73 = 0.69

OCL ---> FLS ---> OPF = 0.92*-0.01= -0.009

Total effect of latent variable SPMS
= Direct effect + Indirect effect
= -0.11 + 0.54 + 0.43 = 0.86

Total effect of latent variable OPF
= Direct effect + Indirect effect
= (0.28*0.86) + 0.69 -0.009 = 0.92

Refering to Table 4, Figure 3 and 4, based on the result of structural model testing regarding the direct effect of OCL on ABCS, the OCL significantly affects the ABCS with coefficient value of 0.94 and t-value of 12.34 respectively. Direct effect of ABCS on SPMS has indicated the ABCS significantly affect the SPMS with coefficient value of 0.57 and t-value of 2.18. Total effect of OCL on SPMS mediated by ABCS is 0.54 resulted from 0.94 times 0.57.

The positive direct effect of OCL on ABCS is supported by numerous research findings such as Lana and Fei (2007) that ABC could result in more accurate costing information if factors influencing ABC success such as factors of organizational culture, outcome orientation and attention to detail, were significantly associated with the implementation of ABC.

Based on the result of structural model testing regarding the direct effect of OCL on FLS in this research has indicated the

OCL significantly affect the FLS with coefficient value of 0.92 and t-value of 10.84 respectively. Direct effect of FLS on SPMS has indicated the FLS significantly affect the SPMS with coefficient value of 0.47 and t-value of 2.41. Total effect of OCL on SPMS mediated by FLS is 0.43 resulted from 0.92 times 0.47. This result shows the total effect of SPMS through FLS is lower than total effect of SPMS through ABCS. This means that mediating variable of ABCS is more significant to affect the SPMS.

Regarding the effect of SPMS on OPF in this research has indicated the SPMS significantly affect the OPF with coefficient value of 0.28 and t-value of 2.20. These research findings are supported by many researchers that have still controversy regarding the importance of the performance measurement system found in previous literatures. According to Bititci et al. (2006), some businesses perform better if they use integrated performance measures, while others argue that the use of performance measurement systems, such as balanced scorecard does not make any difference to business performance. More contemporary studies suggest that the impact of performance measurement systems is contingent (Braam & Nijssen, 2004).

The effect of both ABCS and SPMS is still positively relate to OPF. It is concluded that the SPMS is effective for coal mine organizations; however, some coal mine organizations particularly small to medium companies tend to use the SPMS just as a tool for the purpose of controlling, comparing and analyzing if the performance is not achieved, not yet as an active and effective tool aligning strategies to improve operational performance. Small to medium coal mine companies argue that organizational performance so far is sufficient and measured on indicators of variable ABCS, this means that the variable of flexibility strategy is considered as not so important factor contributing to the organizational performance.

The direct effect of FLS on OPF has indicated the FLS does not significantly affect the OPF with coefficient value of -0.01 and t-value of -0.09. These research findings is supported by Micheli and Manzoni (2010) mentioning that strategy formulation and implementation should be linked to the SPMS to effectively achieve the goals of organizational performance. Therefore, the direct effect of FLS on OPF is negative but can be positive and significant through SPMS.

Theoretical Contribution of the Research

This research theoretically can contribute to performance measurement in building a robust model of an integrated and strategic performance measurement system for the sake of improving organizational performance of coal mine organizations. Also by identifying the features and requirements of performance measurement system in coal mine organizations combined with critical success factors influencing the SPMS, these can be a basis for finding what the most effective theoretical approaches to designing PM framework for coal mine

organizations by examining the strengths and weaknesses of each of the theoretical approaches based on PM features.

This SPMS is a various holistic PMS which is developed to overcome the shortcomings of traditional measurement system in coal mine organizations. This SPMS theoretically has been provided by looking at different perspectives and strive for the best approach for the use in coal mine organizations. Also theoretical contribution of this research has answered the gap between what are wanted to be measured and what can be measured (Meyer, 2002). What are wanted to be measured and what can be measured in coal mine organizations is different and also depends on what the critical issues to be measured and what improvements to be achieved. This research has also contributed about controversy regarding the importance of the performance measurement system. In addition to internal improvement focusing on costing system and flexibility strategy, organizational effectiveness is also considered by setting the most appropriate behavior patterns of culture which enabling strong alignment of strategies towards goal achievement, to shape employee behavior patterns at work, enabling the organization to be more efficient, and to create operational skills-based culture and flexibility-driven culture. According to Dubey et al. (2017), organizational culture particularly flexible orientation and control orientation can be very important employee factors that can generate motivated employees and appropriate behavior patterns. Another theoretical contribution of this research has proven that more contemporary studies suggest that the impact of performance measurement systems is contingent (Braam & Nijssen, 2004).

Managerial Implication of the Research

Managerial implication of this research is to develop a new SPMS framework which is appropriate and able to measure performance of coal mine organizations effectively to improve short-term profitability and long-term growth, at least to sustain survival in facing uncertainties, complexities and risks specific to the coal mining industry.

Managerial benefits of this research in general can be summarized as follows:

We will know what the critical factors and which one will be prioritized for designing an effective SPMS dedicated for coal mine organizations. This will be a basis for an effective decision-making process taken by top management of the companies. The critical factors of each variable of organizational culture, ABC system and flexibility strategy are of paramount importance to be analyzed. By examining the relationship among the variables, top management as a decision maker will have a guidance how to operate the mine and what strategies and what a good system of control taken in order to manage mining organizations effectively and efficiently.

For the sake of survival, improving the financial performance especially free cashflow, by adopting the indicators of flexibility strategy, both volume strategy and

cost strategy or both of them in parallel to mitigate the risks of collapsing due to high cost compared to revenue. Volume strategy implementation is basically adjusted to combination of high grade and low grade; or high overburden removal and low overburden removal; or high Calorific Value (CV) of coal and low CV of coal. The purpose of this volume strategy is basically what the volume must be achieved but still meet both the economies of scale and economies of scope so that the targeted costs of both mining and processing can be achieved, and also can be absorbed by market.

In parallel with the strategy adoption, the cost management system using ABC system will also be adopted to track the costs incurred in every activity to make sure the costs are relevant and achieve standardized costs of each activity. When the strategy and ABC system to be implemented is consistent, it will be effective to carry out mine operation efficiently. However, the use of strategy and ABC system will be effective and efficiently when organizational culture of the companies can support.

Appropriate organizational culture and SPMS dedicated for coal mine organizations can align the strategies taken with goals of organization so that top management will have a good understanding about what the values and how to set pattern of behaviors of organization in order to support the strategies and ABC system implemented to influence the SPMS effectively.

CONCLUSION

The result of structural model testing regarding the direct effect of OCL on ABCS has indicated the OCL significantly affect the ABCS. The direct effect of ABCS on SPMS has indicated the ABCS significantly affect the SPMS. Total effect of OCL on SPMS mediated by ABCS is 0.54 resulted from 0.94 times 0.57.

The direct effect of OCL on FLS has indicated the OCL significantly affects the FLS. Direct effect of FLS on SPMS has indicated the FLS significantly affect the SPMS. Total effect of OCL on SPMS mediated by FLS is 0.43 resulted from 0.92 times 0.47. This result shows the total effect of SPMS through FLS is lower than total effect of SPMS through ABCS. This means that mediating variable of ABCS is more significant to affect the SPMS; however, the effectiveness of the SPMS has to be mediated by both ABCS and FLS which is also the novelty of this research by putting the both ABCS and FLS as mediating varibles instead of independent variables as previous researches. The SPMS is positively related to OPF. This means that the SPMS is effective to improve the organizational performance (OPF).

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Emergence of Social Enterprises as Partners for Social Development in the Philippines

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ABSTRACT

The rise of social development efforts in the Philippines was evident in the 1990s. Most countryside development programs practice putting people's welfare first, then the assumption is that sustainable development will follow. However, sustainability of these programs has been a challenge. Thus, involving the local people in development efforts, including community-based enterprises to address social problems, and creating social enterprises (SEs) emerges. This study characterized eight SEs in Region 4A in the Philippines; analyzed their emergence; and evaluated their effects to stakeholders. A qualitative research methodology was used; specifically, conducting Key Information Interviews (KIIs) with the proprietors of the purposively selected SEs. Data were analyzed using descriptive statistics, and thematic analysis. Results showed that the SEs had various focus areas; used different strategies and SE models; and contributed positive changes to partner communities and groups, making them partners for social development.

Keywords: Development programs, social development, social enterprise, sustainability

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INTRODUCTION

Despite the global commitment to promote quality of life, the endless battle against poverty, and the mounting concern on social inequality, social exclusion and social vulnerabilities remain the marks of social development bottlenecks, especially among developing countries (United Nations Research Institute for Social Development

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[UNRISD], 2014). Development aids are directed to address the multidimensional nature of poverty, unfortunately these efforts still fail to take off (Organization for Economic Cooperation and Development [OECD], 2009).

In 2014, the Human Development Report emphasized that the "challenge is not to keep vulnerable populations from falling back to extreme difficulty and deprivation, but to design an enabling environment for their continuing human development advancement in the upcoming decades" (United Nations Development Programme [UNDP], 2014). The need to stir local entrepreneurial initiatives are proven to be embedded in enabling environment towards enhancing human development and responding to poverty reduction (Mair & Marti 2006; Seelos & Mair, 2005, 2007).

Over the past years, the Philippines had witnessed the increasing number of social development efforts through active involvement of development actors, such as civil society organizations, private sector, government, and donor agencies. A multi-sectoral approach continues to be effective as no particular sector can do the development work alone. However, some programs were not sustained, and some projects failed to achieve their objectives.

Despite the notable economic growth, poverty incidence and inequality persist as a challenge. The emergence of social enterprises (SEs) in the late 1990s was a call for genuine sustainable development programs in the country. It was also during this period where Non-Government Organizations (NGOs) had a lesser funding support from donors; thus, establishing SEs was seen as the key mechanism to generate funds, and to sustain work on the ground.

Proponents of the social entrepreneurship field suggests diverse meanings of social enterprise depending on its utilities and claims across various settings. Related developments include signifying SEs as income-generating strategies for non-profit organizations (Dees, 1998; Millar et al., 2012); volunteer-oriented organizations in public service delivery (Chew & Lyon, 2013; Di Domenico et al., 2009); mutual-based association for social and economic goals (Frances, 2008; Young, 2012); business-oriented enterprise having a strong sense of social conscience or social commitment (Borzaga & Defourny, 2001; Harding, 2004; Moizer & Tracey, 2010; Pache & Santos, 2013); community-based enterprises (Peredo & Chrisman, 2006) as vehicle to address social issues, such as poverty, unemployment, and social injustice (Ebrahim et al., 2014; Williams, 2007); and uphold value-laden approach by embracing innovation in absence or presence of profit-making functions (Choi & Majumdar, 2014).

Accordingly, two major attributes of SE can be drawn from these definitions: the power of social purpose, and the need for economic gains (Peattie & Morley, 2008). For this study, Dacanay's (2012) definition of SE is adopted. It is framed as a social enterprise with the poor as the primary stakeholders, and it is defined as *"a social-mission driven wealth creating organization*

that has a double or triple bottom line (social, financial, environmental), explicitly has as a principle objective poverty reduction/ alleviation or improving the quality of life of specific segments of the poor, and has a distributive enterprise philosophy" (Dacanay, 2012).

In 2017, SE enablers such as European Union (EU), British Council, and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) implemented an SE research project entitled *"Reaching the Farthest First: The State of Social Enterprise in the Philippines"*. It revealed relevant findings on SEs: (a) start-ups SEs tripled in the last decade; (b) created jobs have benefited women, and incoming SEs will be spearheaded mostly by women; (c) SEs mostly operated in the agricultural sector; (d) SEs navigated through the objectives of reducing poverty, generating employment, empowering marginalized sector and improving local community; and (e) SEs operated at a local or provincial level. It also revealed an estimate of 164, 473 SEs presently operating in the country.

This reaffirms that SEs in the country emerged primarily to alleviate poverty in the country. However, as the felt needs of the people change, so does the focus of the SEs. There has also been limited discussions in framing SE using social development lenses. Thus, this study was conducted to determine the role of SEs in the country's social development landscape. Specifically, it sought to: (a) characterize the SEs covered; (b) determine the conditions for its emergence and development; (c) identify its focus areas and strategies; and (d) assess its effects to its partner communities and/or organizations. By answering these research objectives, the study offers practical and theoretical implications of critical understanding on the roles and relevance of SEs in the social development realm.

This paper strongly contributes in examining the emergence of SEs as potential partners in pursuing social development objectives. Research findings are valuable in improving social enterprise growth, development and management both at the local and national level. Moreover, the link between social entrepreneurship and social development is concretized through the presented cases. This has been reiterated by Alvord et al. (2004) when they emphasized that there was a need *"to provoke further exploration of the emerging phenomenon of social entrepreneurship, which we believe can make a great difference in the next century of human and societal development"* (Alvord et al., 2004). The study also presents localized approaches, mechanisms, and strategies among complex and interrelated social development problems.

MATERIALS AND METHODS

The research study used a qualitative research design. Eight business cases were selected through purposive sampling. The criteria for selecting business cases were: (1) an enterprise which has been operating within Southern Luzon (Region 4A); (2) an enterprise with a clear social mission; and (3) an enterprise which strongly adheres to

innovative products and services. Table 1 shows the list of SEs examined for the study. There were many possible sources of the list, because the concept is being rallied strongly by civil society sector. For this study, the list was accessed through the Business in Development website.

Region 4A was prioritized for the study, because of its proximity to the National Capital Region (NCR), where most SEs are believed to be located. NCR is the second most densely populated region in the country where poverty incidence is at 6.7 percent (Philippine Statistics Authority [PSA], 2016).

Table 1

Name of SEs, their nature, location, and year established

Name of Social enterprise	Nature of the Business	Location(s)	Year Established
Bote Central Inc.	Locally grown coffee trading and distribution of roasting machines	Guinayangan and Dolores, Quezon; Lipa City and Batangas City, Batangas	2002
Deo's Aquavermiponics	Distribution of aqua vermiponics model	Sta. Rosa, Laguna	2011
Costales Nature Farms	Organic farming and agro tourism	Majayjay Laguna	2005
PineappleFiber Project for Batas Multi-Purpose Cooperative	Pineapple fiber production and handmade paper	Silang, Cavite	1990
Batangueno's Best Prime Ground Roasted Coffee with Pandan Extract of Aga Farmers Multi-Purpose Cooperative	Coffee production	Nasugbu, Batangas	1994
Soap Farm Philippines of Asian Link Bath and Body Essentials	Handmade organic soap	Lucena City, Quezon	2005
Autism Resource Center (ARC) of the Autism Society Philippines—Laguna Chapter	Enterprise program for young adults with autism and related disorders	Los Baños Laguna	2005
Infanta Integrated Community Development Assistance, Inc. (ICDAI)	Community managed enterprises	Real, Infanta, and Gen. Nakar, Quezon	1990

The research used several qualitative methods, specifically: 1) Key informant interviews (KIIs) among the owners of SEs using structured questionnaire; 2) community visits for a better appreciation of their operations; and 3) comprehensive secondary data review. The secondary data review included reviewing published journal articles and reports from civil society organizations, government agencies, and funding institutions. The data collection was done for two months.

The qualitative data collected were analyzed through descriptive statistics and thematic analysis. It is important to note that the study did not deal with an in-depth assessment or evaluation of individual SE programs and its overall impact to the stakeholders. Figure 1 shows the conceptual framework of the study which highlights the relationship and relevance of SEs' contextual factors and perspectives on the traditional SD efforts in the country resulting into emergence of SEs as partners for social development. The research also highlights the unique attributes of the selected SEs.

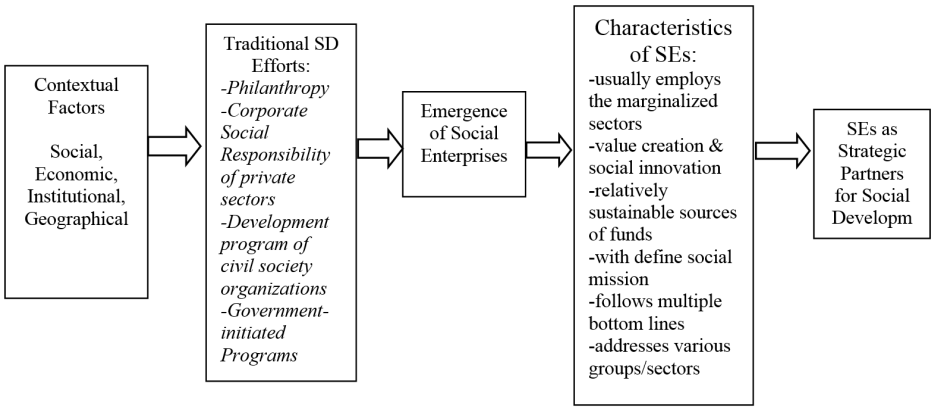

Figure 1. The conceptual framework of the study

RESULTS AND DISCUSSION

The discussion is organized as follows. First, a brief discussion about the progress on SEs' definition including the theoretical support for this study. Discussions clearly elaborate SE using the context-localized perspective (De Bruin & Lewis, 2015) where social entrepreneurship works as a solution to tackle social issues like poverty and inequality. This was articulated by answering all the research objectives stated earlier.

SE's Definition and Theoretical Perspectives of the Study

SE as a praxis offers myriad of platforms among development workers, academic scholars, policy makers, and researchers to redefine the concept, revisit the contentions, reexamine the claims, and

reoffer perspectives to strengthen the field (Mair & Marti, 2006). The universally accepted definition of SE is still not existing, and there is still rising dispute over it (Brock & Steinder, 2008; Peredo & McLean, 2006; Weerawardena & Mort, 2006; Young, 2012). SE as a concept was positioned and acknowledged according to its geographical, historical, cultural, social, economic, political and technological settings (Diochon & Anderson, 2009; Kerlin, 2009; Bacq & Janssen, 2011).

The strong presence of SE in the academia, development work, and policy arena has elevated the interest in testing theories and constructs (Haugh, 2005). For this study, social development related theories and constructs were explored to concretize the link of social enterprises and its roles in shaping the social development landscape. It is imperative to take note also that social development as a critical concept among educators and practitioners does not have well-established theoretical underpinnings. Midgley (2014) defined social development as a *"process of planned social change designed to promote the well-being of the whole population as a whole within the context of a dynamic multifaceted development process"*. He also cited eight attributes of social development based on his two books entitled *Social Development: The Development Perspective in Social Welfare* (1995) and *Social Development: Theory & Practice* (2014). These characteristics were attempted to reflect in the context of social entrepreneurship which hopefully clarifies its contribution in in addressing a literature gap.

The study embarked with the institutional theory, capitalizing on institutional pillars (Scott, 2001) to look closely into local social condition by which SEs had emerged. By examining the environment that calls for economic and socio-cultural upbringing (Di Maggio & Powell, 1991), it can further help appreciate SEs' growth points, influences and its multiple utilities to address social development issues like poverty and social injustice. External and internal factors which shape SEs' structure and management functions are also items which need further assessment. Adoption of certain institutional beliefs, attitude, skills and practices is a manifestation of the SEs legitimization process. This theory will also shed light on how SEs will behave within the spaces of several opportunities.

The notion of Sen's capability approach seems to be critical in investigating SEs development as partner in social development. Thus, it was included to explore how the varied social interests and capacities of the social entrepreneurs and its stakeholders affected the SEs entrepreneurial pathways in maximizing opportunities and responding to local problems. Poverty concern can be resolved through enhancing the necessary capabilities, and through having the freedom to choose towards valuable functions (Tiglao-Torres, 2011). Putting weights on the individual's capability

"to do or to be" is an essential driver among social entrepreneurs and social development practitioners in pushing for inclusive social change through social enterprise. Moreover, it is within this perspective where the concept of social entrepreneurship as a tool to expand social capacities and options are extended.

Social Enterprise Sector

SEs in Asia generally emerge from the change in the approach taken by the nonprofit sector in terms of obtaining resources. Many of the organizations have shifted from full reliance on donor agencies to actively participating in income-generating activities to guarantee the sustainability or their organization and projects. In addition, SEs have also influenced the creation of new trends in the field of entrepreneurship, specifically the popularization of the use of triple bottom line (Tilley & Young, 2009).

A report produced by the Japan Research Institute (2016) revealed that SEs were not fully mature based on public sector support, presence of specialized intermediaries, participation of the academe, and financial support programs (Figure 2). This means that for a country to maximize social benefits generated by SEs, it is crucial to address the inadequacy among these elements.

	Public Sector	Specialized Intermediaries	Academia	Financial Support Programs
Benchmark – Green	A Social Enterprise Law enacted	More than 3 intermediaries, referred by key players interviewed for this study, in each of the following support areas: 1) HR, 2) product & services, 3) info and other support	A social entrepreneurship diploma course (undergraduate/ graduate) established	More than 3 organizations (excluding public agencies), referred by key players interviewed for this study, in each of the following areas: 1) grantmaking, 2) mainstream financial institutions, 3) impact investing funds
Benchmark – Yellow	A SE Support Agency established	1-2 intermediaries referred in each support area	A social entrepreneurship course w/out diploma established	In between above and below.
Benchmark – Red	None of the above	No intermediary referred in more than one support area	None of the above	Absence of players referred in two or three areas
Japan	🔴	🟡	🟡	🟡
China	🔴	🟡	🔴	🟡
South Korea	🟢	🟢	🟢	🟡
Singapore	🟡	🟡	🟡	🟡
Thailand	🔴	🔴	🟢	🔴
Philippines	🔴	🔴	🟢	🟡

Source: Adopted from Japan Research Institute (2016)
Figure 2. Maturity level of ecosystem sectors in the six Asian countries

In the Philippines, SEs are important partners in rural development even way back through history. SEs were also commonly known as cooperatives. Aside from this, Filipinos have customs and traditions pertaining to the concept of "mutual

assistance" and "solidarity". The modern concept of SE arises from the inadequacies of the conventional social development efforts, like the unsustainable support from NGOs, and the top-down approach taken by the government in its programs. Moreover, the Magna Carta for Social Enterprises of 2012 (H. B. no. 6085) provides legal framework for the operations of SEs in the country. In addition, SEs in the Philippines typically focus on addressing poverty issues (Beach & Tyrrell, 2012; Community Economies Collective & Gibson, 2009; Doeringer, 2010; May, 2013; Keh, 2012; Yu Jose, 2011).

The British Council (2015) report titled *A Review of Social Enterprise Activity in the Philippines* brought some critical observations among SEs. It made a brief review of the historical development of the concept by presenting institutional landmarks such as the formation of Philippine Social Enterprise Network (PhilSEN), and the implementation of a degree program in SE in Ateneo de Manila University.

In relation to understanding the role of communication in SEs operation, Villar et al., (2011) revealed that social enterprises in the Philippines framed communication as a *"tool and as a process significant to the operations of the social enterprise"*. It played a critical role in enhancing the relationships among diverse stakeholders and an agent in reaching out the public about the merits of SEs engagement. Geges and Javier (2012) looked at the pathways of SEs that joined the Business in Development Program of the Philippine Business for Social Progress. They pointed out that the SEs' partnership with the local government units (LGUs) was a potential strategy to ensure sustainability. It was also observed that the enterprise birth pains during the growth stage became a compelling factor to further pursue its objectives.

SEs continue to flourish and diversify in the country. The huge population of various NGOs contribute to the mainstreaming of social enterprise. The interest of the younger generation also elevates the influence of social entrepreneurship. However, Ballesteros and Llanto (2017) stated that defining SE still needed to be coherent and coordinated to address the vital support of the sector.

Othman and Ab Wahid (2014) contributed to the academic discourse of SE in Malaysia by providing discussions about social entrepreneurship programs contextualizing the Students in Free Enterprise (SIFE) Malaysia Foundation. SIFE is designed to *"encourage economic and social activities among undergraduates, thereby simultaneously upgrading the economic and social status of a local community"* (Othman & Ab Wahid, 2014) Despite the prevailing condition of SEs not being mature enough, there is still a positive outlook on how it can contribute in enhancing the perspective of "people-centered economy" in Malaysia.

Teo and Tan (2013) provided a content analysis on social entrepreneurship which were reproduced in print media in Singapore for a period of five years. Results shared

three learning points: a) the government is the focal driving force for social enterprise development; b) most social enterprises are fascinated in generating possible employment for the marginalized sector; and c) the country's social enterprise is conscious of earning revenue to back up its social mission.

Characteristics of the Selected SEs

A total of eight SEs from Region 4A were selected for this study: 1) Bote Central, 2) Deo's Aquavermiponics, 3) Costales Nature Farms, 4) Pineapple Fiber Project for Batas Multi-Purpose Cooperative (BMPC), 5) Batangueno's Best Prime Ground Roasted Coffee with Pandan Extract of Aga Farmers Multi-Purpose Cooperative (AGFAMCO), 6) Soap Farm Philippines of Asian Link Bath and Body Essentials, 7) Autism Resource Center (ARC) of the Autism Society Philippines—Laguna Chapter, and 8) the Infanta Integrated Community Development Assistance, Inc. (ICDAI).

Authors in the social entrepreneurship field underscore the merit of having clear social mission in traversing social value creation pathways for marginalized and disadvantaged groups (Dees, 1998; Leadbeater, 2007; Martin & Osberg, 2007). The element of having a clear social mission was also examined in this study; this was done by looking at the Vision-Mission-Goals-Objectives (VMGOs) statements of the selected SEs. It was observed that there was a difference in VMGOs of the SEs depending on its local context (Pérotin, 2014). Bote Central, Costales Nature Farms, and ICDAI dealt with concerns for helping the environment through the protection of natural habitat and forest preservation; advocating eco-friendly initiatives that can mitigate climate change, and the promotion of environmental resource management. These activities supported the claim that SEs generally aimed to promote environmental integrity. It also coincided with the features of SE's multiple bottom lines, which was to include environmental aspirations.

Another observation was that all the eight SEs mentioned their interest in helping people. This strengthens the social function of SEs, and the ability of SEs to help people improve their living conditions. At a micro level, the various SEs expressed these interests differently. Bote Central and BMPC worked on the premise of sustainable livelihood. This meant that these SEs did not only help people find a source of revenue; it also ensured that the project would work in the long-run.

Deo's, Costales Nature Farms, and ICDAI worked on the premise of overall well-being of individuals. Deo's mentioned about the improvement of family nutrition and quality of life through food security. Costales Farm also promoted wellness through having healthy lifestyles; specifically, by encouraging people to consume organic food. ICDAI mentioned different aspects of people's lives, such as health, education, security, and many others.

The remaining three SEs mentioned specific concerns for different sectors. The AGFAMCO would like to help keep the reputation held by the Batangas province in

terms of coffee production. The Soap Farm Philippines aimed to contribute in the fight against poverty through entrepreneurship, and women empowerment. Lastly, ARC aimed to help people with autism get accepted by society, and address the stigma. ARC also explored livelihood activities among youth with autism.

The number of bottom lines being followed, and the groups identified as stakeholders were also used to characterize the SEs. In determining the bottom lines being adopted, this paper used the SEs' VMGOs; program focus (i.e. products/ services); and identified stakeholders as basis. These three pillars of SE would provide an idea of what the SEs engage in, with whom, and for whom. It was found that five out of eight SEs followed double bottom lines, specifically profit and people. This is consistent with the literature which says that SEs generally employ multiple bottom lines. However, it was also reported that striking a balance or harmonizing the bottom lines at an equilibrium was tough (Young et al., 2012).

In terms of stakeholders, it was found that the groups identified varied from one SE to another, and that these were based on their organization's aims and program focus. Only two of the SEs (i.e. Bote Central and Deo's Aquavermiponics) identified individuals belonging to any group or sector as their stakeholders; two (i.e. AGFAMCO and ICDAI) identified their immediate and/or nearby communities; and four (i.e. Costales Nature Farm, BMPC, Soap Farm Philippines, and ARC) identified specific type of groups. Thus, this implies that SEs respond to the needs of different groups (Table 2).

Table 2

Characteristics of selected SEs

SE	VMGOs	Bottom lines	Stakeholders
Pineapple Fiber Project for BMPC	**Vision:** To produce fiber from leftover pineapple leaves and at the same time, benefit the unemployed women and youth in the community	2Ps—Profit, People	Members of the cooperative; Women; OSY; Manufacturers of handmade paper
Batangueno's Best Prime Ground Roasted Coffee with Pandan Extract of AGFAMCO	**Vision:** To preserve the long-earned reputation of Batangas coffee by providing an innovative brew that will help the coffee farmers of Aga in Nasugbu, Batangas	2Ps—Profit, People	Members of the cooperative; their immediate community
Soap Farm Philippines of Asian Link Bath and Body Essentials	**Vision:** To break the cycle of poverty through entrepreneurship **Mission:** To make artisan soaps a lifestyle **Goal/s:** To empower women through work and training; and train artisan soap makers and provide jobs **Objective:** To continuously build and develop the business into a profitable enterprise to be able to provide jobs	2Ps—Profit, People	Women; Global soap shops, stores and businesses; Local retailers and distributors of novelties

Table 2 *(Continued)*

SE	VMGOs	Bottom lines	Stakeholders
ARC of ASP—Laguna	**Vision:** A supportive environment, an enabling community, nurturing independence in people with special needs and helping them to become integrated to their community as much as possible. This community recognizes their strengths and accepts their limitations, and allows them to enjoy the fruits of a truly mainstreamed society as children of God. **Mission:** To establish and maintain community-based support mechanisms across lifespans for persons with special needs particularly with autism in order that they may live fulfilling lives in the highest level of independence they can handle, despite their handicaps	2Ps—Profit, People	Young adults with Autism as well as their families and community/ies
ICDAI	**Vision:** A transformed community wherein stakeholders are God-loving, conscientized and actively participating in alternative social infrastructure which promote environmental sustainability, diversified economy, genuine people's participation and community-managed resource; towards a balanced ecosystem agri-based industry and decentralized governance for the common good and general welfare **Mission:** Commit ourselves to the transformation of the people in the community towards people empowerment through organizing, consciousness raising, education and formation, community-based resource management and mobilization	2Ps—People, Planet	People from the municipalities of Real, Infanta and Gen. Nakar (REINA) in Quezon Province

Conditions and Influences on the Emergence of SEs

Of the eight cases of SEs, three (i.e. BMPC, AGFAMCO, and ICDAI) were established during the 1990s; four (i.e. Bote Central, Costales Nature Farm, Soap Farm Philippines, and ARC) during the 2000s; and one (i.e. Deo's Aquavermiponics) in 2010. This reaffirms that SEs are nascent and are still maturing (Light, 2008; Martin & Osberg 2007; Nicholls, 2010; Roberts & Woods, 2005).

It was found that the startup stories of the establishment of SEs vary, mostly because of various advocacies and interests, which translated to different perceptions of what their partners' or communities' needs. Anchoring on the partners' or communities' needs guarantees the sustainability dimension, because the motivational elements from the entrepreneurs are assured to be integrated (Seelos et al., 2010; Ogilvie, 2012). Bote Central and Costales Nature Farm were initially formed as business ventures, and gradually shifted to being social enterprises. Deo's Aquavermiponics started out by accident, while Soap Farm Philippines was born from a hobby. The rest (i.e. BMPC, AGFAMCO, ARC, and ICDAI) began as a development program of an existing organization that aimed mainly to benefit the members and their immediate and/or nearby communities. It was evident that SEs were stimulated by various institutions which eventually shaped its approaches (Battilana & Dorado, 2010; Battilana & Lee, 2014).

SEs may not necessarily be new undertakings. Instead, these may come from already existing organizations or businesses that have taken on a new type of framework (e.g. 3Ps) to cope with the changing local situations. This also shows that people and some organizations are now

embracing this new approach in carrying out social development efforts and initiatives. SEs performance is propelled with its desire to satisfy critical elements, which include social goals, sustainability, and financial resource development (Weerawardena & Mort, 2006).

It was observed that all the eight were created as a response to certain social needs and issues that must be addressed. The concerns to address issues differed for every SE, but were generally anchored on the multifaceted view of local poverty and unemployment. The collected information suggested that SEs, like other SD efforts and most businesses, were opportunities for people in need, basically to help improve their lives through income-generating opportunities, among others.

Like most start-up business organizations, there were several challenges that the social entrepreneurs encountered while establishing their SEs. The most common of these were financial problems, incompetence among management and its members, inadequacy of assets such as land or physical structures for its operations, and weak market linkage for their products and services. Other challenges were time management, linkage building with government agencies, and dependence on external help. These issues were addressed later by designing concrete and collective solutions (Table 3).

Table 3

Summary of the SEs' history

SE	How was it formed?	Why was it founded?	Challenges Encountered	Solutions Employed
Bote Central Inc.	The founders were trying to put up a business venture.	To address the problem with civets, and help the community people	The market	Educating, finding, and developing the market; Being brave and committed
Deo's Aquavermiponics	It started by accident, while researching on the internet.	To educate the market on the benefits of ecosystem-based farming and provide them with a system that can help them produce their own foods, thereby improving their family nutrition and quality of life	Not applicable in the Philippines—no potential market	Studying more about the idea in terms of theory and practice
Costales Nature Farm	It started as a family business.	To fuse the idea of having a place for families to retreat and a source of organically grown foods (e.g. vegetables, livestock, etc.)	Financial problems, Management set-backs, The location is far	Inviting investors, Conduct of monthly staff meetings and weekly monitoring

Table 3 *(Continued)*

SE	How was it formed?	Why was it founded?	Challenges Encountered	Solutions Employed
Pineapple Fiber Project for BMPC	The already established cooperative was trying to do something about their production wastes.	To assist the BMPC in engaging in other livelihood activities and employ women and out of school youth to empower them and provide them with sources of income	Lack of technical, financial and management competence; Too much dependence on external advisers in terms of seeking markets	Trainings on values formation, project management, basic accounting for non-accountants, and skills/ livelihood trainings on handloom weaving and handmade paper
Batangueno's Best Prime Ground Roasted Coffee with Pandan Extract of AGFAMCO	The cooperative, which was originally formed by corn farmers, is composed of coffee farmers.	For the cooperative to have their own product or label	Legalization matters (i.e. not yet registered), Financial problems (e.g. budgets for going to trade fairs, unpaid loans, etc.), Lack of training among members	Outsourcing from their community, the Cooperative Development Authority (CDA), the Department of Trade and Industry (DTI), and the LGU; Constantly re-minding their members about the payment for their loans
Soap Farm Philippines	It started as a hobby and as an upcycling program for soap by-products.	To break the cycle of poverty through entrepreneurship; To make artisan soaps a lifestyle	Gender roles that women workers must do (e.g. chores and taking care of the children), Extended lunch breaks, Punctuality (i.e. late-ness, absences), Presence of mind, Salary advances	Training for work ethics, Disciplinary actions, Trainings on self-empowerment—physical, spiritual and financial literacy
Autism Resource Center	Under the ASP—Laguna, it was formed as one of their programs for coping up with Autism.	To have a prevocational center for young adults with Autism	Venue, Financial problems, Time, Some parents don't want to be involved, Difficulty in reaching out to the LGU	Borrowing an empty lot, Making use of their own homes, Making phone calls and scheduling, Reaching out to people, Doing follow-ups
ICDAI	The organization was originally founded during the 1970s as a response to poverty. In the 1990s, it embraced the idea of community enterprises as a new approach for dealing with the said problem.	To address rural poverty	Unfamiliarity with the concept of Social Entrepreneurship, Mobilization of people and other resources, Building linkages	Consulting with available literature and/or experts, Outsourcing and tapping the youth

Focus Areas and Strategies of the Selected SEs

The SEs determine their products and services based on their focus areas. These products and services are categorized into: agricultural, educational, technological, health and nutritional, environmental, livelihood opportunities, basic non-food commodities, and tourism.

Based on the review conducted, it was found that the SEs have multiple categories. Six SEs have products and services that are

considered as agricultural; four belonged to educational; two had technological; and all maintained livelihood opportunities. Three SEs had health and nutritional outputs, and four had environmental outputs. In addition, one had basic non-food commodities, and another one had tourism outputs. This indicates that SEs have diverse areas of operations. This is consistent with literature, which proposes that SEs adopt more than one bottom line. As a return, it can effectively perform its role as SD partners, because SD problems are interconnected and complex in nature.

The SEs employed various strategies based on the need and existing context in the community. Among the identified strategies, the most common can be summed up under the umbrella concept of "organization development" which include conducting regular program monitoring, holding of meetings among the staff/members, building partnerships and networking with other organizations and sectors, and conducting capacity building activities to enhance the abilities of their own members.

Like other ventures, it was inevitable for SEs to experience certain problems during its operations. It was found that the implementation challenges were generally about financial matters (Mendell & Nogales, 2009) (e.g. lack of funds and unpaid loans), management set-backs, lack of market, and formation of external linkages. It was also found that some SEs encountered the same problems met during its birth. This suggests that the problem was not resolved properly, and it is necessary to revisit the effectiveness and efficiency of the designed solutions (Tracey et al., 2011).

The crafted solutions were considered as win-win situations (Tencati & Zsolnai, 2009); and were generally about seeking more investors, conducting regular staff meetings, making use of creativity and opportunities that come, as well as outsourcing and doing follow-ups. Table 4 provides an overview of the SEs' focus areas and strategies.

Table 4

SEs focus areas and strategies

SE	Focus Areas	Strategies
Bote Central Inc.	• Agricultural • Technological • Environmental • Livelihood	Being creative or thinking out of the box, Tapping the youth
Deo's Aquavermiponics	• Agricultural • Educational • Technological • Health and Nutrition • Environmental • Livelihood	Studying, Researching, Seizing opportunities—investors, schools, etc.

Table 4 *(Continued)*

SE	Focus Areas	Strategies
Costales Nature Farm	• Agricultural • Health and Nutrition • Environmental • Livelihood • Tourism	Meetings, Monitoring
Pineapple Fiber Project for BMPC	• Agricultural • Livelihood	Constant monitoring of project activities, Conduct of monthly meetings, Networking with develop-ment partners to source grants
Batangueno's Best Prime Ground Roasted Coffee with Pandan Extract of AGFAMCO	• Agricultural • Educational • Health and Nutrition • Livelihood	Application of the learnings from the seminars and trainings attended, Setting of policies, Creation of an operations manual
Soap Farm Philippines	• Livelihood • Basic non-food commodities	Opening communication lines, Employing women, Training and Assessment of skills, Scanning the environment for needs assessment
Autism Resource Center	• Educational • Livelihood	Reaching out to other families through the LGU, Making an enterprise for people with Autism
ICDAI	• Agricultural • Educational • Health and Nutrition • Environmental • Livelihood	Community Organizing & Social Infrastructure Building; Training and Education; Value Formation; Policy Advocacy; Com-munity-based Media; Welfare; Disaster Management

Effects of SEs to Partner Communities and Organizations

The effects of SEs on their stakeholders may be analyzed through certain success indicators, and how the SE programs correspond to the needs of its stakeholders (Harding, 2004). It can be noted that social entrepreneurs, together with other members, generally looked at various indicators or measures, and they chose the ones which they thought would best suit their programs. However, not all SEs were conscious of identifying their own indicators.

It was found that SEs responded to the needs of its stakeholders generally through providing them with education, health services, and livelihood opportunities, among others. These solutions highly depended on the kind of needs that social entrepreneurs perceived and observed. The

owners of the SEs were members of the community, so there was a level of certainty that their identified needs are also the needs of their community.

It was found that the most common interventions of the SE to their partner communities and/or organizations were the provision of skills trainings (Bloom & Chatterji, 2012; Smallbone et al., 2001) as well as provision of employment and/or livelihood opportunities. Other interventions involved delivery of basic social services, like education and health; helped increase family income; and provided a certain degree of environmental protection. These SEs are driven to generate innovative products and services (Haugh, 2005). The data suggested that program effectiveness also varied from one SE to another. The reason for this is that SEs have different programs and identified groups of stakeholders, which also have different social realities. Aside from this, the data also showed that SEs had direct influence to people's lives, and bred social gains such as building sense of community, collaboration, creation of mutual trust, strengthening social networks, solidarity and collective decision making (Bagnoli &and Megali, 2011; Borzaga and Tortia, 2006; Heeks & Arun, 2010; Jenner & Oprescu, 2016; Morrow et al., 2009; Peattie & Morley, 2008). There was also an effort to solidify the sense of ownership through a collaborative leadership and governance (Sonnino & Griggs-Trevarthen, 2013; Lyon & Sepulveda, 2009) which can further improve SEs toward sustainable development. It can also be translated through the private-public sector partnership paradigm. Table 5 summarizes the different SEs' success indicators, strategies, and effects to stakeholders.

Table 5

Indicators of program success, how the programs address the needs of stakeholders, and the effects of these SEs to their partner communities and/or organizations

SE	Success indicators	How the programs address the needs of stakeholders?	Effects to Partner Communities and/or Organizations
Bote Central Inc.	Reaching the program goals and objectives within the set timetable	Helping them become involved in the production to consumption chain of coffee	Coffee farmers can now roast their own produce/harvest, Women become employed now, thus promoting gender equality, Increases in the family income, Communities get influenced to care for the civet cats and its habitat
Deo's Aquavermiponics	Consumer satisfaction (from customer reports), Get recommended/invited more, Improvements in the technology being used	Provision of : new knowledge, livelihood/ income opportunities, healthy and sustainable source of food	Society is now starting to get familiar with the concept of Aquavermiponics and its potential benefits. In addition, the unemployed from the nearby communities acquired a source of livelihood

Table 5 *(Continued)*

SE	Success indicators	How the programs address the needs of stakeholders?	Effects to Partner Communities and/or Organizations
Costales Nature Farm	Continuous production, Whether it is still earning or not	Provision of healthy alternatives	Small farmers were inspired to become better agri-preneurs, Students were encouraged to engage into organic agriculture and patronize organic produce for a healthy lifestyle; Business opportunities were opened for OFWs through the Joint-Venture Programs
Pineapple Fiber Project for BMPC	Increase in income, Application of knowledge and skills learned from trainings provided	Provision of: skills trainings, livelihood/ income opportunities	The OSY trained were employed in the project, and women groups in the community were also invited to attend the trainings on handmade paper and handloom weaving
Batangueno's Best Prime Ground Roasted Coffee with Pandan Extract of AGFAMCO	High repayment rate for loans, Development among members and in their community	Provision of support services for their cooperative's and community's development	Building of a community store, Giving of scholarship grants to the neighborhood students, Provision of health services (e.g. medical missions, feeding programs, etc.), Summer school program for the OSY, Establishment of a day care
Soap Farm Philippines	Empowerment of women through financial independence via livelihood, Continuous feedback and communication from stakeholders, Breaking barriers	Provision of skills training and assessment	Skills development and employment for the urban poor women
Autism Resource Center	Good performance of the clients on the tools used for measuring skills gained, Reports, Evaluation	Provision of support services for the benefit of the youth who have Autism as well as their families and community	Mitigation on the effects of Autism to children as they grow up, Assimilation of people with Autism into the mainstream society, Relatively higher acceptance of people with Autism to the community and/or society
ICDAI	Having the group or community to stand on its own or as a fully operational organization	Provision of trainings needed as well as livelihood opportunities	Established and earning social or community enterprises

Roles of SEs as partners in Social Development

SEs play critical roles among areas of employment generation (Bouchard & Rousselière, 2016), poverty reduction (Cooney, 2011; Spear & Bidet, 2005; Xiang & Luk, 2011), local community improvement, and empowerment of marginalized groups and vulnerable sector (Nicholls, 2006; Shaw et al., 2012). The same roles were also evident with the eight cases presented in this paper. As a driver of social change, it was observed that the SEs facilitated the promotion of the following: (a) women's

participation and gender equality, and (b) socially inclusive development approach. SEs' unique attributes also harmonize with social development dimensions as stated by Midgley (2014). These are:

(a) SD as a concept comprises of a systematic process;

(b) SD promotes progressive social change approach which manifest among development plans, programs and policies;

(c) SD processes are integral part of a wider multifaceted process;

(d) SD process is interventionist in nature which needs human agency in delivering social development goals;

(e) the productivity process of SE contributes directly to economic growth;

(f) the universalistic scope of SE cuts across the whole populace;

(g) universalism as an aspect of SD targeting individuals and household; and

(h) social development upholds the advancement of social welfare.

This further links SE in performing various roles in light of social development goals and purposes (Sdrali et al., 2016).

CONCLUSION

The continuous growth of social enterprises in the country earns positive outlook among development actors, despite the lack of unifying definition. Likewise, its emergence has been promising in the social development field. It attempts to address social, economic, environmental, as well as socio-cultural issues. Various sectors are now clinging with SE, looking at it as a tool to promote social equality, and to empower local communities. Given the contextual landscape of SEs in the Philippines, it would be helpful to revisit key attributes of SEs to optimize its performance and gains. SE is promising when positioned as a poverty reduction strategy. Thus, it is meaningful to comprehend its potential social, economic and ecological benefits to help design interventions and solutions to reduce poverty among communities.

This study analyzed the emergence of social enterprises as partners for social development in the Philippines, particularly in the Southern Luzon area. The SEs were characterized according to the bottom lines adopted and groups identified as their stakeholders. It was found that majority had double bottom lines, and stakeholders' groups varied from one SE to another. Majority of the SEs were established during the 2000s. The way they started out vary, because the social entrepreneurs had different perceived realities, interests, and perceived needs of their communities.

In terms of SE programs, it was found that SEs focus on more than one area. The most common were agricultural and livelihood. Additionally, there were several strategies employed. The popular strategies that were identified were the conduct of regular program monitoring; holding of meetings among the staff/members; forming linkages with other organizations, communities, and sectors; and educating their own members through trainings, seminars, and the like. The effects of SEs to stakeholders also varied from one SE to another. The most common were the

provision of skills improvement, as well as provision of employment and/or livelihood opportunities. Thus, this implies that SEs can be instruments for social development.

It is important to mention that the younger generation has a growing consciousness and interest to establish their own SEs. With this opportunity, it is hoped that the SEs will continue to contribute in shaping the Philippines' social development landscape.

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Employee Brand Equity: Mediating Role of Brand Role Clarity and Employee Brand Commitment

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ABSTRACT

The objective of the study is to investigate the mediating role of employee brand commitment and brand role clarity in the relationship between openness and employee brand equity in Islamic banking. Survey method was used to collect the data form 278 employees working in Islamic banking. In sampling procedure, the stratified random sampling and simple random sampling were used in collecting the data from the respondents. PROCESS Macros was used to check the relationships specially mediating role of employee brand commitment and brand role clarity in the relationships. Findings of the study demonstrate that employee brand commitment mediates the relationship of openness and employee brand equity while brand role clarity has no mediating role in the relationship of openness and employee brand equity. The relationship between variables has been tested before but the mediating role of employee brand commitment and employee role clarity in the relationship has not been tested before.

Keywords: Brand role clarity, employee brand equity, employee brand commitment, Islamic banks, JEL Classification: M31, O15

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INTRODUCTION

Islamic banking depends on Islamic laws, which disallow interest from any type of loan (Altaf et al., 2017a; Ariff, 1988; Mokhtar et al., 2018; Zafar et al., 2012). For the reason, the concept of Islamic finance emerges. The modern form of Islamic finance banking

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system first introduced in Egypt in early sixties with the aim to give halal returns on customers' investments. In Pakistan, Islamic banking system started its operation in 2001 and got remarkable growth in few years, however, the growth was not satisfactory as compared to conventional banks due to lack of professional employees (Ahmed et al., 2013). Hence, to achieve competitive advantage, managing brand equity through employee is the first towards financial performance (Ahmed et al., 2013).

Employee brand equity (EBE) or employee side of brand equity is a contributor towards external brand equity or customer side of brand equity (King & Grace, 2009). Employee brand equity is the differential impact of brand knowledge on employee responses in work environment (King & Grace, 2009). Hence, employee brand equity makes employee consistent towards delivering brand promise. Therefore, the success of brand depends on employee attitude and behavior (Burmann & Zeplin, 2005). The brand related behavior of the employee is employee brand equity, which includes every type of brand related verbal and non-verbal employee behavior that comprised brand consistent behavior, brand allegiance and employee brand loyalty.

Infact, the brand knowledge is an important factor that contributes towards the working behavior of the employees (King & Grace, 2009, 2010). Hence, it is necessary for organization to realize organizational benefits to the employees because it is the necessity for the brand knowledge (Corace, 2007). To stimulate employee brand knowledge, the required approach in the management to stimulate employees in order to receptive towards organizational dialogue is called employee openness (King & Grace, 2009). Therefore, the first objective of the study is to investigate the relationship of employee openness with employee brand knowledge i.e. role clarity and brand commitment which further lead the relationship towards employee brand equity. Secondly, the best of our knowledge, the mediating role of role clarity and brand commitment in the relationship of employee openness and employee brand equity has not been considered before. Here, researches interest is to know the variables that transform the impact of employee openness towards employee brand equity. Therefore, the second objective of the research is to investigate the mediating role of brand commitment and role clarity in the relationship of employee openness and employee brand equity.

The study is presented in following manner. First, we present the review of literature to explain the relationships and generate hypothesis to anticipate the research framework. Second, we empirically test developed hypothesis. Third, we discuss theoretical and empirical implications. Lastly, we encapsulate our research with future research and limitations.

LITERATURE REVIEW

Customer based bard equity is in term of external brand management (Altaf et al., 2017a; Altaf et al., 2018). Similarly, employee brand equity is a third perspective

and internal views of brand equity. The concept covers the perspective of employee side of brand equity (King & Grace, 2009) because employees in services firm are the key in delivering services and important element in service profit chain (Heskett & Schlesinger, 1994). Furthermore, it is a contributor towards consumer based brand equity (King & Grace, 2009). Employee brand equity is the outcome of the process of employee-based brand equity (EBBE) that is defined as "The differential effect that brand knowledge has on an employee's response to their work environment" (King & Grace, 2009). Therefore, employee brand equity (EBE) is the employee response towards their work environment. In the case of employee brand equity, brand knowledge equips employees to deliver brand promise. Consistently with employee brand equity, the objective of internal branding is to engage employees in a way to deliver brand promise (Burmann & Zeplin, 2005) and deliver brand experience (Ghose, 2009). According to Punjaisri and Wilson (2007), internal branding helps organization in development of strong and powerful brand.

In the present study, we use the conceptualization and measurement of King et al. (2012) where the employee brand equity is measured through the three dimensions i.e. brand consistent behavior, brand allegiance and brand endorsement. Brand consistent behavior is non-prescribed behavior of the employees or also called brand citizenship behavior (Burmann et al., 2009), whereas brand allegiance is the employee loyalty towards brand. In other words, brand allegiance is the employee future intention towards brand weather the employee should remain with brand in future (King et al., 2012). Brand endorsement is the third dimension of employee brand equity where employee says positive words towards brands and recommend brands to others (Burmann & Zeplin, 2005).

Employee openness is an approach where employee is prepared to receive an information because effectiveness in transmission and interpretation depends on employee responsive towards organization and customer (King & Grace, 2009). Employee openness is treated in an organization as disclosure of information which makes an organization effective (Eisenberg & Witten, 1987) because when the communication is open, organizational crises are avoided (Rogers, 1987), organizational and group goals are achieved (Kaplan, 1985) and task ambiguity is reduced (Wilson & Malik, 1995).

King and Grace (2009), conceptualized employee openness with four components i.e. organizational socialization, employee attitude towards their job, employee participation and management support. Employee socialization is defined as the "the process by which an individual comes to appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming an organizational role and for participating as an organizational member" (Louis, 1980). The objective of employee openness is to make employee responsive. therefore employee socialization is an important in organization (Naudé

et al., 2003). Distortion of information in communication process discards the effectiveness. Therefore, employee attitude towards job having ability to minimize the distortion because satisfied employees are more responsive towards organizational generated information (King & Grace, 2009; Naudé et al., 2003). Moreover, employee involvement in decision making is the third component of employee openness. employee involvement is an opportunity where employee participate in decision making and providing feedback (Altaf et al., 2013; King & Grace, 2009) and having significant impact on commitment of an employee (Conduit & Mavondo, 2001). Fourth, management support whereby organization creates close proximity and relationship with employees. the component is very important because management support enables employee motivation toward job and make employee committed towards their job (Bell et al., 2004). Hence, the above discussion helps us to postulate the following hypothesis:

Hypothesis 1: Employee openness would have positive impact on role clarity.

Hypothesis 2: Employee openness would have positive impact on employee brand commitment.

As with reference to the brand commitment, employees having clear role about the work, job and brand. Such employees prefer to work with motivation, energy and with full confidence to keep the organization in running position. Such employees are devoted, motivated, and do hard work for the progress of the organization. Therefore, the employees who are satisfied and committed with the organization must be committed with the brand of the organization as well. Hence, such positive relationship indicates that the satisfied, motivated and devoted employees with the employer, job, work environment, brand promise, brand commitment, and organizational committed employees will never leave the organization (Morgan & Hunt, 1994). According to Castro et al. (2005), commitment makes employee loyal and dedicated towards their work efforts. In the same way, committed employees having positive job satisfaction and work having positive word of mouth and having intention to stay (Bloemer & Odekerken-Schröder, 2006) and consistent towards delivering brand promises (Burmann & Zeplin, 2005). More specifically, there is a significant positive relationship existing between brand commitment an Employee brand equity (e.g., Baumgarth & Schmidt, 2010; King & Grace, 2010; King et al., 2012). Hence, we can postulate that:

Hypothesis 3: Employee brand commitment would have positive impact on employee brand equity.

In the process of employee brand equity, the two variables gain very much importance i.e. brand commitment and role clarity (King & Grace, 2009). Role clarity is important because it makes employee role clear in the organization about the job. According to King and Grace (2009), performance of employee having direct relationship with role clarity because it rises employee ability to understand the work. A

significant relationship exists in literature between employee understanding of their role requirement and employee satisfaction (Boselie & Van der Wiele, 2002). In the same vein, employees having satisfied employees are less inclined to leave an organization (Ramlall, 2004) and having positive word of mouth (Miles & Mangold, 2004). According to Burmann and Zeplin (2005), employees having high level of brand understanding deliver higher level of brand experiences. The recent research of Altaf et al. (2017b), Mokhtar et al. (2018), Altaf et al. (2018), Piehler et al. (2016), and Piehler et al. (2017) also identified the relationship of employee brand understanding and employees' brand behavior and found positive relationship. Similarly, positive relationship of role clarity and employee brand equity found positive in the literature of internal branding (e.g., Altaf et al., 2017b; King & Grace, 2010; King et al., 2012). Hence, we can postulate that:

Hypothesis 4: Role clarity would have positive impact on employee brand equity.

Past studies indicated the positive relationship in between employee openness and role clarity (King & Grace, 2009, 2010), employee openness and brand commitment (Bell et al., 2004). Previously, role clarity having positive relationship with employee brand equity (King & Grace, 2009, 2010; King et al., 2012). Moreover, brand commitment has also positive relationship with employee brand equity (e.g., Ahn et al., 2015; Baumgarth & Schmidt, 2010; Burmann et al., 2008; King et al., 2012; Kwon, 2013; Piehler et al., 2015; Sepahvand & Sepahvand, 2013; Yang et al., 2015). Based on assumption, the study proposes role clarity and brand commitment as the mediator in the relationship of employee openness and employee brand equity. On the basis, we can hypothesize that:

Hypothesis 5: Role clarity mediates the relationship of employee openness and employee brand equity.

Hypothesis 6: Employee brand commitment mediates the relationship of employee openness and employee brand equity.

THEORETICAL FRAMEWORK

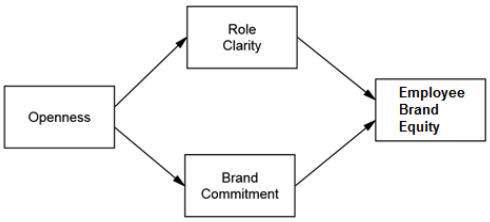

Figure 1. Framework of the study

RESEARCH METHODOLOGY

The method used to find out the results for study was based on survey questionnaire. These questionnaires were distributed to potential respondents and were received after one day to make easy and relax time for employees to choose better one option for response. This survey questionnaire helps in making accurate and clear results by the employee's perceptions. All the scales were adopted from previous researchers. This questionnaire was based on Likart type Scale having five possible options ranging

from (1= Strongly Disagree to 5 = Strongly Agree).

Multistage sampling method was used to collect data from the respondents. In the first phase, Islamic bank branches were selected based on proportionate stratified random sampling. In the second stage, inside organization, systematic sampling was employed to collect the data from frontline as well as from backstage employees. Every second employee within bank branches was considered for data collection.

Total number of 453 Questionnaires were distributed to the employees of Islamic banks. Out of 453 questionnaires, 280 questionnaires were returned. Total numbers of two Questionnaires were discarded due to incompleteness and response biasness. A total of 278 questionnaires were considered for analysis. Hence, the effective response rate was 61.4%. After collecting the responded questionnaires, researchers analyzed data through statistical package for social sciences (SPSS) version 20.

Research Constructs

Employee openness is the employee receptiveness towards organizational dialogues (King & Grace, 2010). To measure the construct, multi-dimensional scale was adopted from the study of King and Grace (2010). Dimensions include management Support, organizational socialization, employee attitude towards job and employee Involvement. A total numbers of 26 items were used to measure the construct with four dimensions. Role clarity is the mediator of the study. To measure the construct, 7 items scale was adopted from the study of King et al. (2012). Similarly, the second mediator of the study was employee brand commitment that was measured through 5 items scale adopted form the study of King et al. (2012). Lastly, employee brand equity that is the employees' brand behavior was adopted from the study of Baumgarth and Schmidt (2010). Employee brand equity was measured through three dimensions including employee loyalty, in-role brand behavior and extra-role brand behavior. A total number of 8 items were adopted to measure the three dimensions. All the items were gauged through five points Likert-type scale. A total numbers of 46 items were used for the study excluding employee demographic information.

RESULTS OF THE STUDY

Data was analyzed by using SPSS 20. Multiple tests were applied to verify the proposed hypothesis. Reliability was found acceptable for all the variables. All the correlation values in Table 1, shows significant positive relationship between variables. Correlation Analysis suggests that there is significant positive relationship existing between employee openness with role clarity and brand commitment having value $r = 0.524$ ($p < 0.01$) and $r = 0.148$ ($p < 0.01$) , respectively. The results of correlation analysis supported our hypothesis H1 and H2. Furthermore, the values of correlation between the relationship of Role Clarity and Brand Commitment with Employee brand

equity were r = 0.306 ($p < 0.01$) and r = 0.632, ($p < 0.05$) supporting our hypothesis H3 and H4.

Table 1

Correlation among variables

	Employee openness	Role Clarity	Brand Commitment	IBE
Employee openness	1			
Role Clarity	0.524**	1		
	0.000			
Brand Commitment	0.148**	0.350**	1	
	0.005	0.000		
IBE	0.118*	0.306**	0.632**	1
	0.025	0.000	0.000	

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Furthermore, to check the impact of independent variables on dependent variables (See Table 2), researchers regressed our dependent variables over independent variables. First, researchers regressed role clarity over employee openness, found significant result having beta value, $\beta = 0.524$, ($p < 0.01$) supports our hypothesis 1. Secondly, researchers regressed brand commitment over employee openness and found the significant impact of employee openness on brand commitment having value $\beta = 0.148$, ($p < 0.05$) supports our hypothesis 2. Role clarity and brand commitment also having significant positive impact on employee brand equity having values $\beta = 0.306$, ($p < 0.05$) and $\beta = 0.632$, ($p < 0.01$). Results of the study support our hypothesis 3 and 4 respectively.

Table 2

Regression analysis

	Role Clarity		Brand Commitment		Employee Brand Equity	
Predictors	R^2	β	R^2	β	R^2	β
Employee openness	0.274	0.524**	0.022	0.148**		
Role Clarity					0.094	0.306*
Brand Commitment					0.400	0.632**

**. Correlation is significant at the 0.01 *. Correlation is significant at the 0.05

To check the mediating role of role clarity and brand commitment in the relationship of employee openness and employee brand equity (See Table 3), researchers used the PROCESS macro tool by using SPSS version 20 (Hayes, 2013). PROCESS macro allows us to check the indirect effect of role clarity and brand commitment in the relationship of employee openness and role clarity. Researchers checked the indirect effect by generating 95% bootstrap bias confidence interval on the basis of 1000 bootstrap samples. Employee openness was entered with both potential mediators simultaneously. Results of the study show that the direct effect of employee openness and Employee brand equity was insignificant having value of confidence interval (LLCI = -0.1740, ULCI = 0.0922). While indirect effect of brand commitment in the relationship of employee openness and employee brand equity was significant having values of confidence interval (LLCI = -0.0253, ULCI =0.2390). Both lower level confidence interval LLCI and upper level confidence interval ULCI do not includes zero. Hence, we conclude that the brand commitment having mediating role in the relationship of employee openness and employee brand equity. Brand commitment completely mediates the relationship because the direct effect was insignificant and direct effect was significant. On the other hand, indirect effect of role clarity in the relationship of employee openness and employee brand equity was insignificant having values of confidence interval (LLCI = -0.0180, ULCI = 0.1856). Both lower level of confidence interval and higher level of confidence interval contain zero. Therefore, the indirect effect is considered insignificant. Hence, role clarity has no mediating role in the relationship of employee openness and employee brand equity.

Table 3

Mediation analysis by using PROCESS macro

Direct effect of Employee openness on Employee Brand Equity					
Effect	SE	t	p	LLCI	ULCI
-.0409	0.0677	-0.6047	0.5458	-0.1740	0.0922
Indirect effect of Employee openness on Employee Brand Equity					
		Effect	Boot SE	Boot LLCI	Boot ULCI
TOTAL		0.2073	0.0735	0.0823	0.3566
Brand Commitment		0.1243	0.0538	0.0253	0.2390
Role Clarity		0.0830	0.0499	-0.0180	0.1856

Number of Bootstrap were = 1000
Confidence Interval = 95%

CONCLUSION AND DISCUSSION

The results of the study revealed that openness having positive relationship with role clarity and brand commitment. Furthermore, brand commitment and role clarity having positive relationship with employee brand equity. According to the results, openness having greater impact on role clarity as compares to brand commitment but on the other hand, brand commitment having more impact on the Employee brand equity as compare to role clarity. Furthermore, results of the mediation analysis indicate that brand commitment having mediating role in the relationship of openness and employee brand equity. The mediation is full mediation but role clarity does not mediate the relationship of openness and employee brand equity.

Based on results, openness is the stronger driver for role clarity but having lesser impact on brand commitment. Therefore, we can say that if we want to clear the employee about the roles to perform brand related activities but on contrary, if organization needs to enhance the level of brand related behavior of the employee (Employee Brand Equity) that is non-prescribed in nature, therefore, service sector needs to enhance the level of brand commitment. The findings of the research is in line with the past researchers (e.g., Ahn et al., 2015; Baumgarth & Schmidt, 2010; Burmann et al., 2008; King & Grace, 2010; King et al., 2012; Kwon, 2013; Piehler et al., 2015; Sepahvand & Sepahvand, 2013; Yang et al., 2015). Moreover, brand commitment also mediates the relationship of openness and Employee brand equity, which suggests that brand commitment is the variables that transform the effect of openness on employee brand equity. Therefore, Islamic banks need to concentrate on the brand commitment in order to get the competitive advantage.

LIMITATION OF THE STUDY

This study only limited to the pure Islamic banks and not included the stand-alone branches of conventional banks. Hence, the results may change in case of conventional banks or stand-alone windows of conventional banks. Moreover, employee brand equity is measured through employee perspective and it is recommended to measure employee brand equity from consumer perspectives.

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The Effect of Project Governance and Sustainability on Project Success of the Public Sector Organizations in Pakistan

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ABSTRACT

The purpose of this paper is to investigate the effect of project governance and sustainability on project success of the public sector organizations in Pakistan. Across Pakistan, 425 valid responses were collected using a cross-sectional survey. The sample was restricted to firms registered with Pakistan Engineering Council. PLS-SEM was used to assess the proposed reflective-formative model through path modeling and bootstrapping technique. The results indicate that project governance and sustainability are positively associated with project success. This paper provides empirical evidence about the substantial positive effect of project governance and sustainability on project success, in the context of public sector organizations in Pakistan.

Keywords: PLS-SEM, project governance, project success, sustainability

INTRODUCTION

Public sector organizations are continuously striving to achieve success in projects. Success is a barometer by which an organization can assess its performance. The reason why project success is significant for public sector projects is because it involves a large amount of money of taxpayers, who need to be satisfied with the outcomes. Similarly, project success is vital to public sector organizations as it enables them to gain profits and maximize value in both short and long term (Badewi, 2016).

Globally, project success rates are falling alarmingly, making achieving success on

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projects a major concern for public sector organizations. Despite the attention, these organizations have failed to achieve their objectives on projects. In the USA alone, trillions of dollars have been invested in public sector projects, but unfortunately, the failure rates on these projects are more significant than the success rates (Serrador & Pinto, 2015). Similarly, in the United Kingdom, two thirds of public projects went over budget and could not be completed on time (Cabinet Office, 2013; NAO, 2011).

Concurrently, a much worsening trend of failing projects is observed in the developing countries. In India, Ghosh (2015) reported that public sector projects worth billions of US dollars had failed to achieve their objectives and eventually terminated. Likewise, Asian Development Bank (2016), reported that in Pakistan, only 21.6% of the public sector projects, which were partially funded by the bank, had been successful in the last eight years. Also, Ullah et al. (2017) posited that a majority of the projects in Pakistan were performing inefficiently, which had resulted in time and cost overruns. In addition, the funding of "Balochistan Copper and Gold Project" was stopped by the Government of Pakistan, because it had failed despite an expenditure of USD 15 Million ("Balochistan to stop", 2015).

However, several reasons have been identified by organizations that lead to these unfavorable circumstances on the projects. Pinto and Mantel (1990) conducted a comprehensive study to understand the reasons why projects failed to achieve success and concluded that the failure was mainly due to poor governance, unrealistic project objectives, and inability to fulfill stakeholder needs. Similarly, Sage et al. (2014) believed that inefficiency and lack of governance were among the few possible reasons why projects were unable to be successful. Likewise, Ullah et al. (2017) and Asian Development Bank (2016) reported that, in Pakistan, most public sector projects were failing due to poor project governance. Among the many reasons identified, project governance has been observed as the most critical in achieving project success. Also, Joslin and Müller (2016) and Young et al. (2013) posited that prospects of achieving project success could be improved by project governance.

Another factor leading to project success is sustainability. Sustainability is development along the protection of the environment, economy, and society. A lack of sustainable practices has resulted in global warming and since 1960 average sea level, globally, has risen at an average rate of 1.8 mm/year and since 1993, 3.1 mm/year (Thomson & El-Haram, 2014). Approximately 530 million tons of demolition and construction waste from different projects has been produced by the European Union, which accounts for 25-30% of the total solid waste generated (Zhong & Wu, 2015).

1 Project success isthe achievement of objective and subjective measures, included in the success criteria and measured at the end of a project (Müller &Jugdev, 2012)

Pakistan has a long history of public sector projects that have also facing the sustainability challenges (Khan et al., 2013b). It was further iterated by Rehman et al. (2011) that current efforts to improve the project management systems in public sector organizations of Pakistan were not effective. Simultaneously, Pakistan[1] is far behind in meeting Sustainable Development Goals. The problems reported suggest that sustainable development activities in Pakistan are fragmented in projects and thus need to be empirically tested with project success to quantify its effects.

Moreover, to our best knowledge, in the context of developing countries there is very scarce empirical evidence on the association between project governance, sustainability, and project success. Furthermore, the focus of the existing literature is explicitly on the corporate sector. Previous studies have only discussed the impact of dimensions of project governance on project success and used secondary data to understand the relationship (Joslin & Müller, 2016: Young et al., 2013).

Thus, the purpose of this study is to empirically test the effect of project governance and sustainability on the project success of the public sector organizations in Pakistan. This study will use primary data to investigate the relationship. Simultaneously, the study will also provide useful insights to practitioners, by allowing them to understand how different governance structures and sustainable practices can be developed to achieve success.

The next section presents review of the literature on project success, project governance, and sustainability. Research methodology, results, and discussion are dealt with in the subsequent sections. Conclusion and limitations of the study are discussed in the last section of the paper.

LITERATURE REVIEW

Project Success

In the current literature, project success is one of the most researched topics in the field of project management. Several authors have debated on the meaning and definition of "project success" (Joslin & Müller, 2016; Müller & Jugdev, 2012; Munns & Bjeirmi, 1996).

Project success has evolved from a simple performance measurement tool to a list of achievements on the projects. Moreover, the concept was traditionally known as project management success, and was defined by Pinto and Slevin (1988) as the fulfillment of technical performance criteria; later on, Atkinson (1999) added the achievement of project objectives to the definition followed by the contribution from Shenhar and Dvir (2007), who instilled the idea of stakeholder satisfaction as a crucial component of the concept. Similarly, Khan et al. (2013a) in their study, compiled and analyzed all the previous definitions of project success and divided the concept into five distinct dimensions namely (i)project efficiency (ii)organizational benefits (iii)

2 Pakistan far behind in meeting sustainable development goals. (2016, Feb 13). *Daily Times* Retrieved from http://search.proquest.com/docview/1764803347?accountid=27932

project impact (iv)future potential, and (v) stakeholder satisfaction. Hence, it can be understood from the previous literature that project success is no longer the completion of the project in the given time and within a given budget; rather, it also means to make sure that the result of the project ultimately satisfies the end user.

However, project success is in the limelight due to several reasons, such as it enables organizations to strategically align the project objectives with the organizational objectives (Cooke-Davies, 2002; Joslin & Müller, 2016). Similarly, project success allows the organizations to evaluate their efficiency and stakeholder satisfaction (Atkinson, 1999). Müller and Turner (2007) suggested that organizations could improve their financial performance, increased market shares, and a higher rate of return on investments for their shareholders, by successfully executing their projects.

Santos and Varajão (2015) postulated that though project success was a vital project management issue, the path necessary to achieve it was inadequately investigated. Therefore, several studies have examined a number of antecedents that may possibly lead to project success. Koskinen (2001) recommended that communication on the projects only supplied knowledge but it might not guarantee the project's success. Gray (2001) studied the impact of organizational climate on the project success, and concluded that the primary objective of management on projects should be the reduction of threat, in order to achieve success on projects. Similarly, Dvir et al. (2003) suggested that the amount of effort invested in project planning had a significant effect on becoming successful in projects. Raymond and Bergeron (2008) claimed, in their empirical study, that the project management information system had a substantial contribution in achieving success in projects.

Although the antecedents observed have a significant role in achieving success, but recent literature (Badewi, 2016; Joslin & Müller, 2016; Toivonen & Toivonen, 2014; Young et al., 2013) points to more pragmatic issues such as the governance on projects. In the next section, governance and its role in project success was discussed.

Project Governance

Müller et al., (2016) defined governance as the aggregate of approaches and processes that defined the objectives of organizations and provided the mechanism to control progress in attaining those objectives. However, Cadbury (2002) described governance as a holistic process, where the goal was to meet the interests of the stakeholders. Brownill and Carpenter (2009) posited that the overall function of governance should be to achieve success. In the context of projects, governance is a structure by which the objectives of a project are defined and the means of achieving those objectives and monitoring performance are determined (Turner, 2009). Furthermore, project governance stresses on the relationship among a project's management, sponsor, owner, and stakeholders.

On the contrary, Renz (2007) argued that the issue at hand was how governance concerns were implemented within the organizational units such as projects. Similarly, Crawford and Cooke-Davies (2005) claimed that corporate strategies were executed and driven by projects, and thus, effective governance of projects using governance framework became a serious concern for organizations. Likewise, the main objective of every project, as Ojiako et al. (2014) stated, is to create and maximize value for organizations. They further asserted that, this maximized value was strongly related to project success, which wa the overall measure of the performance of the organization. Therefore, it is important to manage these projects using governance structures appropriately.

Hence, project governance establishes a mandatory link for management and control of projects that are executed across organizations (Bernardo, 2014; Joslin & Müller, 2016; Too & Weaver, 2014). Thus, this governance gap between project governance and project success leads to the assumption that governance structures on projects are vital in achieving success.

Concurrently, Joslin and Müller (2016) revealed that there was a small but significant correlation between project governance and project success. Likewise, Joslin and Müller (2015) investigated the role of project governance in the influence of project management methodologies on project success. The basis of their framework was a study conducted by Sharma et al. (1981). The findings of their study indicated that project governance did not exhibit traits of a moderating or a mediating role in the methodology-success relationship. They concluded by suggesting that project governance might be an antecedent to project success. Their results are in coherence with other studies (Young et al., 2013). Bekker and Steyn (2009) conducted a qualitative case study in South Africa in which they used Delphi and nominal group techniques to test the relationship between project governance and project success on large scale investment projects. They found strong association among project governance and project success after conducting interviews with their respondents.

Sustainability

One of the major concerns for practitioners as well as academicians in the present era is restoring the sustainability of our planet. Schwaninger (2015) reported that over the last 200 years, the separation of economics and ecology had led to a profound conflict. As a solution to the existing scenario, we have to find the unity of economic activity and its natural basis to achieve sustainability. Projects are an economic activity as argued by Rolstadås et al., (2014) and the amalgamation of sustainability has been considered crucial for projects in the recent literature (Albrecht et al., 2007; Bohne et al., 2015; Hannan & Sutherland, 2014; Sánchez, 2015) .

Sustainable development, as defined by the Brundtland Commission's Report, is the development that meets the needs of the present generations without compromising

the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). Similarly, Johnston et al. (2007) stated that sustainability demanded ways of living that enabled all people of the world to lead healthy, fulfilling, and economically secure lives without destroying the environment and without endangering the future welfare of people and the planet.

Additionally, it is observed from the literature that sustainability is expanding beyond purely environmental concerns, and with it, different perspectives have emerged on what represents sustainability. In the context of projects, Khan (2000) defined sustainability as "the ability of a project to maintain an acceptable level of benefit flows through its economic life".

Although practitioners have called for project sustainability, how this is practiced by professionals is unclear (Willard et al., 2010). However, project sustainability should also be viewed in terms of environmental, social, and economic perspectives. Opoku et al. (2015) asserted that sustainable development balanced environmental resource protection, social progress, and economic growth and stability now and for the future. Sánchez (2015) suggested that to assess projects with respect to goals defined within an organization, it was necessary to consider economic, social, and environmental criteria. She further argued that projects or deliverables of a project could have social, economic, and environmental impacts that far outlasted the projects themselves. Thus, this study will consider the three dimensions to measure sustainability.

Similarly, Lapiņa and Aramina (2011) believed that the twenty-first century not only required greater productivity and effectiveness on the side of management, but it also needed that project management paid more attention to the issue of sustainability. Although sustainability and project management have been widely researched, Brent and Labuschagne (2007) believed the alignment between the two issues was still very rare.

Moreover, limited research has been conducted to study the integration of sustainability in project management; organizations incorporating sustainability in their project management methodologies would support their project management, making it a part of the success of the project (Silvius & Schipper, 2015).

Therefore, in conjunction with the previous studies, this study will contribute by empirically testing the theoretically hypothesized relationship between project governance, sustainability, and project success.

Hence, we can hypothesize:

Hypothesis 1: *There is a positive relationship between project governance and project success.*

Hypothesis 2:*There is a positive relationship between sustainability and project success.*

Figure1 displays the research model;

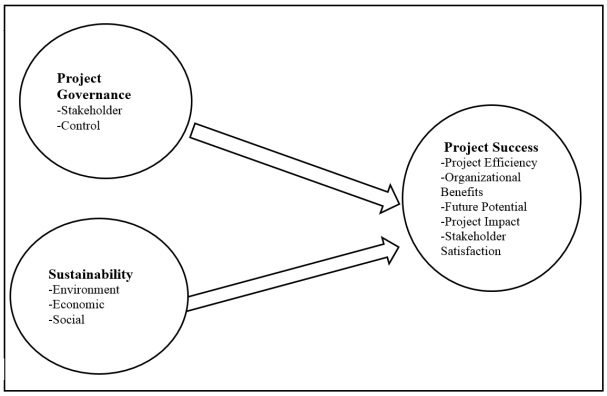

Figure 1. Proposed research model

RESEARCH METHODOLOGY

Sample and Data Collection

The "Key Informant Approach" was employed in this study to determine the respondents. This approach is common in product and services related studies (Marshall, 1996). Key informants such as project managers are selected because of their knowledge, experience, and ability to communicate (Joslin & Müller, 2016; Khan et al., 2013a; Turner et al., 2013). In other words, the mid-level managers such as project managers or program managers are responsible for the oversight of governance in projects and for adopting sustainable policies.

Therefore, project related staff members, working on different public sector projects across Pakistan, were selected as the unit of analysis for this study. The list of organizations working on these projects was obtained from Pakistan Engineering Council (PEC). A total of 75,713 firms are registered with PEC, which is considered as the sampling frame for this study. The database of these firms is available on the website of Pakistan Engineering Council (www.pec.org.pk).

The formula given by Krejice and Morgan (1970) was used to calculate the sample size. In this case, the sample size for a population or a sample frame of 75,713 appears to be 384. Next, Hair et al. (2010) suggested a minimum sample size required for Structural Equation Modeling (SEM) technique was 100 samples, given that there were five or less latent constructs where each latent construct had more than three items in the proposed theoretical framework.

Quantitative data was collected using the stratified sampling method because the sample was divided into sub-groups. To gain widest coverage, data was collected from four different provinces and the federal territory of Pakistan using the cross-sectional approach.

Therefore, a total of 1000 questionnaires were distributed, using self-administered survey, across Pakistan from December, 2016 until March, 2017. An e-mail with the online survey link was forwarded to 1000

firms from the list obtained from PEC of the sampling frame. However, only 425 returned questionnaires, from both methods, were usable.

The non-response bias was addressed by comparing the means of the online respondents and the mail survey respondents. The t-Test performed on the study indicated no significant difference (at $\alpha = 0.05$) between the two groups of responses. Viswanathan and Kayande (2012) suggested using different scales for measuring the constructs to avoid the common method bias, thus project governance was measured at a continuum of seven whereas project success was measured using a range of five scores.

A majority of the respondents possessed a bachelor's degree, i.e., 56.9%, followed by Master's and Diploma, being 32% and 9.2%, respectively. Only 1.9% of the respondents held doctoral degrees. Moreover, 30.1% of the responses came from Balochistan, followed by 21.4% from Punjab, 20% from Khyber Pakhtunkhwa, 14.4% from Sindh, and 14.1% from Islamabad. A large majority of project managers participated in the survey, i.e., 59.5%. Program managers accounted for 12.7% of the distribution. Whereas, 6.1% of the respondents were project directors, 5.4% of the participants in the survey were portfolio directors. The average experience on projects for the respondents was fifteen years. 63.1% of the respondents were working on engineering/construction projects, followed by research and development being 14.4%, education 5.9%, IT/telecom 4.9%, and health 3.1%. Table 1 presents the demographic profile of the respondents.

Table 1

Demographic profile of the respondents

Variable	Frequency	Percent
Education		
Diploma	39	9.2
Bachelors	242	56.9
Masters	136	32.0
Ph.D.	8	1.9
Total	425	100.0
Geography/Working		
Balochistan	128	30.1
Sindh	61	14.4
Khyber Pakhtunkhwa	85	20.0
Punjab	91	21.4
Islamabad Capital Territory	60	14.1
Total	425	100.0

Table 1 *(Continued)*

Variable	Frequency	Percent
Position Held		
Project Manager	253	59.5
Program Manager	54	12.7
Portfolio Manager	23	5.4
Architect	13	3.1
Project Director	27	6.4
Team Member	51	12.0
other	4	0.9
Total	425	100.0
Project Experience		
1-5 years	197	46.4
6-10 years	91	21.4
11-15 years	29	6.8
16-20 years	25	5.9
20 years plus	83	19.5
Total	425	100.0
Sector		
Research and Development	61	14.4
Engineering / Construction	268	63.1
IT/Telecom	21	4.9
Health	13	3.1
Education	25	5.9
other	37	8.7
Total	425	100.0

Questionnaire Development

The questionnaire consists of four sections. In the first section, demographic information of the respondents is recorded. The demographics allow us to check if the respondent's knowledge and experience about the pertaining issues is sufficient.

The second section of the questionnaire examines the respondent's opinion of project governance. Questions for project governance were adapted from Müller and Lecoeuvre, (2014). The governance paradigms of stakeholder and control are preferred as they have been effectively used in previous studies related to project governance in the past to measure the construct (Joslin & Müller, 2016). These items reflect the position of the organization in the context of (1) stakeholder & (2)

control dimension. The responses were elicited on a seven point "Likert" scale with 1 = strongly disagree and 7 = strongly agree.

The third section of the questionnaire investigates the respondent's opinion on the success of projects. Questionnaire items were adapted from Khan et al., (2013a) as their instrument is public sector sensitive. They have suggested five different dimensions for measuring project success which are project efficiency, organizational benefits, project impact, stakeholder satisfaction, and future potential. These dimensions cover both, short-term and long-term, implications of the construct. The responses were elicited on a five point "Likert" scale with 1 = strongly disagree and 5 = strongly agree.

Section four of the questionnaire examines the expert judgment of respondents on the sustainability in projects in terms of social, environmental, and economic aspects. The questionnaire developed by Martínez et al. (2013) was adapted in this study to measure sustainability. The construct is measured using three dimensions, namely, (i) Economic, (ii) Social, and (iii) Environment. A pilot study was conducted with the initial sample of fifteen respondents. In addition, wordings for a few items on the instruments were changed for better understandability. The answers from the pilot test are not included in the study.

Data Analysis

In the current study, the data was analyzed using Partial Least Square – Structural Equation Modeling (PLS-SEM), using Smart PLS version 3.0. The reason for using PLS-SEM instead of CB-SEM is because Hair et al. (2017) suggested that PLS-SEM was more efficient in the prediction of exogenous variables. Likewise, we intend to analyze the relationship between reflective-formative constructs also known as hierarchical latent variables, which cannot be assessed by CB-SEM, therefore, PLS-SEM is considered as a rational option. Additionally, PLS-SEM uses the data to estimate the path relationships with the objective of reducing error terms. Finally, PLS-SEM is preferred over CB-SEM, as it does not require any assumption about the data distribution which allows us to retain most of the measurement items (Hair et al., 2017).

Therefore, the research model in this study was analyzed using the two-stage approach proposed by Becker et al. (2012). In the first stage, the final endogenous variables (i.e., project governance, sustainability, and project success) are linked to the path model with the first-order constructs (stakeholder, control, environment, economic, social and project efficiency, organizational benefits, future potential, project impact, and stakeholder satisfaction) and estimated, then, the scores for latent variables for the first-order constructs are saved. However, in the second stage, the latent variable scores are used for the analysis of the second order constructs.

Furthermore, the reliability and validity of the manifest constructs was assessed through the outer layer (i.e., measurement model) in the first stage, whereas,

in the second stage (structural model) bootstrapping was performed which allowed us to analyze the inner layer to answer our hypothesis and retrieve t-statistic.

RESULTS

Measurement Model

In a reflective-formative model, initially the suitability of the lower order reflective constructs is analyzed. Thus, it becomes necessary to observe the measurement model, which provides a comprehensive view of the constructs. Hence, we begin by understanding the integrity of the measures for lower order reflective constructs followed by the evaluation of the higher order formative constructs.

Integrity of Measures

Goodness of a measure or the integrity of an instrument is tested by observing the reliability and validity. Cooper and Schindler (2014) suggested that if an instrument had consistent results, it was believed to be reliable, whereas validity indicated how well an instrument measured a specific concept which it intended to measure.

Reliability of the Instrument

The reliability of a measurement instrument is indicated by the internal consistency of the items. Cooper and Schindler (2014) posited that internal consistency was the extent to which the items on an instrument were homogenous and reflected the same underlying construct. In this study, Cronbach's Alpha (α) coefficient indicates the consistency of the measurement items. The alpha values and loadings are summarized in Table 2.

Moreover, it is observed, from Table 2, that the alpha values of all the lower order reflective variables are well above the cutoff point of 0.6 as suggested by Nunnally and Bernstein (1994). Thus, it is concluded that the measurement items are reliable.

However, Cronbach's Alpha (α) assumes that all indicators are equally reliable, i.e., the loading of indicators on a construct is equal. However, Hair et al. (2017) argued that in PLS-SEM, the reliability of the individual indicators was more crucial. This indicates that Cronbach's Alpha might not be a proper measure of reliability.

Hence, Hair et al. (2017) recommended using another measure of internal consistency, that was, the composite reliability which dealed with the reliability of the individual indicators. Thus, composite reliability is the extent to which the reflective items indicate the latent variable. The values of composite reliability are given in Table 2 (Hair et al., 2017) recommend a threshold value of 0.7 and in this study the composite reliability values range from 0.816-0.900, exhibiting sufficient reliability.

Convergent Validity

The next major criterion for the assessment of goodness of instrument is to determine the convergent validity. Cooper and Schindler (2014) stated that it was the extent to which responses on one item correlated with responses on other items for the same construct. It is, therefore, understood that the items of a reflective construct should

Table 2

Results of the assessment of measurement model for lower order constructs

Formative Constructs	Scale Type	Indicators	Weights	P Value	VIF
Project Success	Formative	Project Efficiency	0.313	0.000	2.067
		Organizational Benefits	0.143	0.036	2.903
		Project Impact	0.205	0.006	2.917
		Future Potential	0.352	0.000	2.808
		Stakeholder Satisfaction	0.147	0.022	2.416
Project Governance	Formative	Control	0.549	0.000	1.478
		Stakeholder	0.580	0.000	1.478
Sustainability	Formative	Environment	0.344	0.000	1.514
		Social	0.320	0.000	1.895
		Economic	0.535	0.000	1.595

share a high proportion of variance among each other. Furthermore, Hair et al. (2017) suggested that to assess convergent validity of reflective constructs, the factor loadings of the items and the average variance extracted (AVE) must be considered.

The factor loadings of the reflective constructs are presented in Table 2. It has been suggested by Hair et al. (2017) that ideally these outer loadings should be 0.708 or higher.

But, it is observed that the factor loadings for all the items except for PSPE3, PSPE7, PSSS2, PSOB1, SUSA2, PGSTK4, and PGCTRL5 are slightly below the cutoff point. Hair et al. (2017) suggested that items that had factor loadings below the threshold could be retained if they did not significantly affect the composite reliability and average variance extracted. Thus, PSSS2, PGCTRL5, and SUSA2 were removed from the measurement model because deleting them would increase the AVE beyond the minimum threshold of 0.5. The other items were retained because their removal might lead to issues of content validity.

Additionally, convergent validity is also exhibited by the average variance extracted (AVE). Hair et al. (2017) define AVE as the total amount of variance in the indicators accounted for the latent variables. The cutoff point for AVE is 0.5. The values of AVE for the lower order reflective constructs are presented in Table 2. However, the values lie between the range of 0.521 and 0.670, surpassing the suggested value of 0.5 (Hair et al., 2017).

Hence, it is noted from the values of factor loadings and average variance extracted, provided in Table 2 that the instrument fulfills the assumption of convergent validity.

Discriminant Validity

After ensuring the reliability and convergent validity of the instrument, we test the measures for discriminant validity. Hair et al. (2017) stated that discriminant validity was the degree to which the construct was distinct from other constructs. Moreover, Fornell and Larcker (1981) suggested a technique for assessing the discriminant validity. They believed that the discriminant validity of an instrument could be examined by comparing the square root of the average variance extracted values with the correlations of the latent constructs.

This comparison is presented in Table 3. However, it is noted that the lower order reflective constructs have a higher square root of average variance extracted (AVE) values than the correlations among the latent reflective constructs, indicating sufficient discriminant validity.

But, Hair et al. (2017) argued that the criteria for assessing discriminant validity given by Fornell and Larcker (1981) was very poor when item loadings differed minutely (i.e., between 0.6-0.8). Therefore, Henseler et al. (2015) suggested the criteria of heterotrait-monotrait (HTMT) ratio of the correlations. Hair et al. (2017) described this method as the true estimate of the correlation between the variables, if these variables were perfectly reliable. This correlation is also known as the disattenuated correlation.

Ideally, the HTMT ratio of the correlations should be less than 1 (Henseler et al., 2015). In Table 4, the HTMT ratios of the correlations for the reflective variables are presented, which are below the threshold indicating sufficient discriminant validity. The measurement model for the lower order constructs is diagrammatically given below in Figure 2.

Table 3

Fornell and Larcker (1981) criteria of discriminant validity

Reflective Constructs	1	2	3	4	5	6	7	8	9	10
Control (1)	0.725									
Economic (2)	0.46	0.788								
Environment (3)	0.36	0.442	**0.74**							
Future Potential (4)	0.468	0.645	0.497	**0.798**						
Organizational Benefits (5)	0.389	0.622	0.46	0.727	**0.734**					
Project Efficiency (6)	0.414	0.52	0.635	0.625	0.634	**0.728**				
Project Impact (7)	0.434	0.639	0.457	0.721	0.718	0.641	**0.777**			
Social (8)	0.387	0.598	0.568	0.582	0.573	0.564	0.559	**0.731**		
Stakeholder (9)	0.569	0.506	0.309	0.459	0.427	0.37	0.465	0.401	**0.722**	
Stakeholder Satisfaction (10)	0.37	0.565	0.462	0.644	0.672	0.63	0.707	0.551	0.457	0.818

Note: Diagonals (**bold**) represent the square root of the average variance extracted while other entries represent the correlations

Table 4

HTMT criteria of discriminant validity

	1	2	3	4	5	6	7	8	9	10
Control (1)										
Economic (2)	0.616									
Environment (3)	0.461	0.531								
Future Potential (4)	0.619	0.805	0.595							
Organizational Benefits (5)	0.522	0.788	0.559	0.84						
Project Efficiency (6)	0.525	0.622	0.732	0.74	0.762					
Project Impact (7)	0.581	0.812	0.553	0.905	0.917	0.767				
Social (8)	0.523	0.765	0.688	0.738	0.737	0.681	0.72			
Stakeholder (9)	0.776	0.645	0.38	0.583	0.549	0.451	0.597	0.522		
Stakeholder Satisfaction (10)	0.506	0.73	0.574	0.825	0.874	0.771	0.92	0.721	0.599	

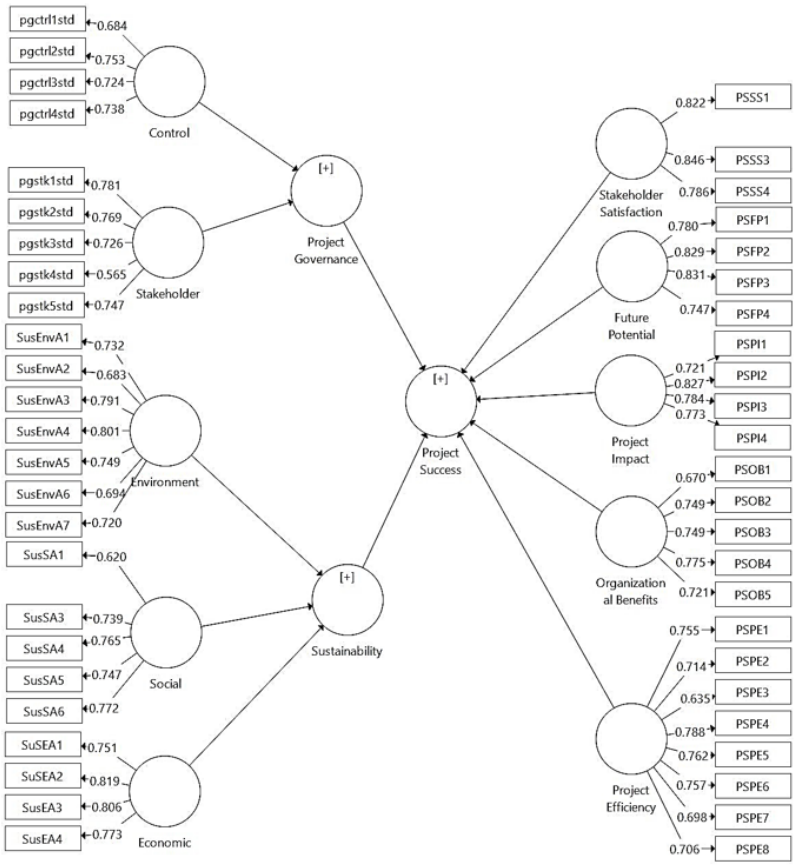

Figure 2. Measurement model for lower order constructs

Outer Weights and Multicollinearity of Formative Constructs

As discussed earlier in data analysis, this study analyzed the reflective-formative model using two stage approach suggested by Becker et al. (2012). Moreover, Becker et al. (2012) argued that this method was parsimonious on the higher level analysis. Hair et al. (2017) suggested that the indicator weights, significance of the weights and multicollinearity of the variables should be reported for formative constructs, to validate them. The corresponding values are presented in Table 5.

Hence, it is observed that the outer weights are significant for the formative constructs. Additionally, the VIF of the indicators for the formative constructs are below the threshold i.e., VIF < 5, indicating that there are no multicollinearity issues. Likewise, The VIF between the latent formative constructs (project governance, sustainability, and project success) is 1.529 which is below the cutoff value given by Hair et al. (2017).

In aggregation, the measurement model confirmed both sufficient convergent validity and discriminant validity for the reflective (lower order) variables. And, it is also noted for the formative (Higher Order) constructs that the outer weights are significant and there are no multicollinearity issues, allowing us to proceed to our stage two i.e., the structural model analysis. The visual representation of the second stage of the measurement model is given in Figure 3.

Table 5
Results of assessment of measurement model for higher order constructs

Formative Constructs	Scale Type	Indicators	Weights	P Value	VIF
Project Success	Formative	Project Efficiency	0.313	0.000	2.067
		Organizational Benefits	0.143	0.036	2.903
		Project Impact	0.205	0.006	2.917
		Future Potential	0.352	0.000	2.808
		Stakeholder Satisfaction	0.147	0.022	2.416
Project Governance	Formative	Control	0.549	0.000	1.478
		Stakeholder	0.580	0.000	1.478
Sustainability	Formative	Environment	0.344	0.000	1.514
		Social	0.320	0.000	1.895
		Economic	0.535	0.000	1.595

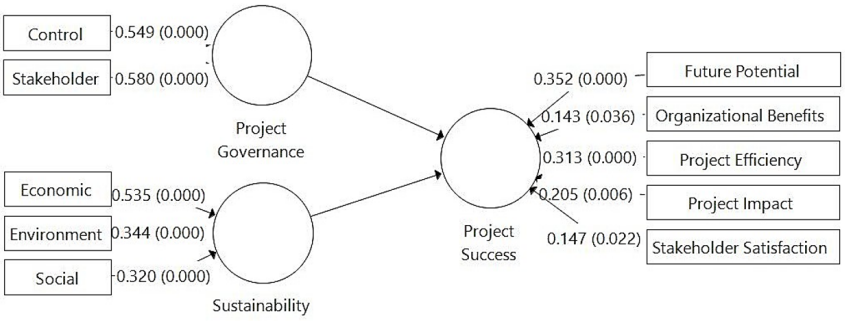

Figure 3. Measurement model for higher order constructs

Structural Model

It is hypothesized in this study that project governance and sustainability have a positive effect on the project success of the public sector organizations. By using the partial least square analysis, it is empirically verified that project governance ($\beta = 0.171$, $p < 0.000$) and sustainability ($\beta = 0.692$, $p < 0.000$) have a positive impact on the project success of the public sector organizations explaining roughly 64% of variance in project success ($R^2 = 0.64$). In addition, the effect size of R^2 is important because it determines the strength of the variance explained. Cohen (1988) considered an affect size of 0.02 as small, 0.15 as medium, and 0.35 as large.

Thus, according to Cohen's criteria, the effect of project governance on project success is small ($F^2 = 0.056$) and it is also determined that the effect of sustainability on project success is large ($F^2 = 0.912$). The summary of the structural model is presented in Table 6.

Table 6

Summary of the structural model

Hypothesis	Std. Beta	P-Value	T-statistic	Decision
Project Governance → Project Success	0.171	0.000	16.745	Supported
Sustainability → Project Success	0.692	0.000	20.837	Supported

DISCUSSION

This paper investigates the relationship between project governance, sustainability, and project success of public sector organizations of Pakistan. The results of this study have provided empirical evidence in support of the formulated hypotheses. Furthermore, our findings have confirmed that there is a significant positive effect of project governance ($\beta = 0.171$) and sustainability ($\beta = 0.692$) on project success.

Moreover, the results are consistent with the findings of Joslin and Müller (2016), who stated that the dimensions of project governance had a significant impact on the project success. Also, the outcomes

of this present study are in coherence with the findings of Young et al. (2013) who analyzed secondary data to establish similar conclusions. Additionally, this study provides empirical support to the theoretically hypothesized relationship of project governance and project success by Bekker and Steyn, (2009) and Brownill and Carpenter, (2009). Similarly, the results of this study reinforce the findings of Ojiako et al. (2014) who stated that if governance structures on projects were managed properly, the probability of achieving success increased.

Also, empirical evidence is established in favor of the argument presented by Lapiņa & Aramina (2011) that sustainability may impact the success of the projects. Based on the results, it has been found out that sustainability has a stronger effect on project success. These results are also in coherence with the findings of Sánchez (2015), and Silvius and Schipper (2015), who theoretically bridged these two concepts.

Previously, Ahmad et al. (2015) revealed in their study, how soundness of business, planning, quality performance, and past performance affected the project success in the public sector organizations of Pakistan. Likewise, Khan et al. (2013a) suggested that factors such as project management competence, organizational environment, financial control and top management support. contributed to the achievement of project success, whereas, to our best knowledge, this study was the first attempt of determining the role of project governance and sustainability in attaining successful results on public sector projects in Pakistan.

CONCLUSION

This undertaken quantitative research aimed at determining the effect of project governance and sustainability in project success in the public sector organizations of Pakistan. After empirically testing the hypothesized research model, it has been proved that there is a significant positive impact of project governance and sustainability on project success. Also, the research question that was posed earlier can now be answered. Our hypothesis (H.1) is supported by a relatively small effect size ($F^2 = 0.056$), whereas our hypothesis (H.2) is supported by a large effect size (0.912). Furthermore, it has been found out that almost 64% of the variance is explained in project success by project governance and sustainability.

However, we measured project governance using two different dimensions (stakeholder and control), as suggested by Müller and Lecoeuvre (2014). It is observed from the results that stakeholder dimension explains a greater portion of the variance in project governance than control. This indicates that the stewards who are the project managers should attend to the needs of the various stakeholders rather than exercising control on the project.

Also, it is recommended that sustainability should be measured as an aggregate of environmental, social, and economic perspective on the public sector projects in Pakistan. It is further suggested

that the practitioners in Pakistan and other developing countries should focus on adopting environmental friendly, socially responsible, and economically viable policies in public sector projects. Similarly, project efficiency contributes the most to project success as a dimension of the construct. It proves that in Pakistan there is a greater need for project managers to focus on the triple constraint criteria (time, cost, and quality) to measure the success of their projects.

Moreover, a number of project-related staff members were contacted - 425 valid responses were collected across Pakistan from five different sectors. The large number of respondents implies the willingness of the public sector project managers' participation in the study. Managers with a vast experience were more responsive, being mainly from engineering/construction industry.

Additionally, we contribute to the body of knowledge by concluding that project governance and sustainability behave as an antecedent to project success. Finally, scientific proof has been presented to practitioners to improve governance and sustainability in projects to achieve project success.

STRENGTHS AND LIMITATIONS

In the present study, a rational sample of project-related staff is collected from throughout Pakistan, covering all the provinces and the federal territory. Additionally, professional respondents were approached, which resulted in improved responses. Similarly, PLS-SEM is used for the empirical analysis of the research model, which provides more robust and stringent results as compared to the traditional methods.

However, in this study we analyzed the relationship between the higher order variables which may be considered as a limitation of this study. In future, researchers can study the effect of project governance and sustainability on the different dimensions of project success. Another limitation of the study is that it was conducted in the context of public sector organizations of Pakistan, whereas in future, researchers can analyze the relationship in different geographical regions, focusing on the private sector.

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Analysis of the Implementation of the Performance Pay System for Civil Servants in the Ministry of Environment and Forestry in Indonesia

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ABSTRACT

This study aims to analyze the implementation of the performance pay system for civil servants in the Ministry of Environment and Forestry (MoEF) in the Republic of Indonesia. This study uses a post-positivist paradigm and analyzes factors that influence the implementation. Data were collected from existing documentation and through in-depth interviews with civil servants in the MoEF. The results of this study indicate that the implementation of the performance pay system in the MoEF has not been effective in supporting the improvement of employee performance. This is due to unavailability of rewards for employees who have successfully achieved their performance targets, ineffectiveness of the application of the performance measurement systems in analyzing actual employee performance, absence of merit pay principles, and the lacking of a review of the implementation of the current performance pay system. Several factors that influence the application of the performance pay system in the MoEF are employee commitment, job evaluation, leadership commitment, performance evaluation, and funding system. The knowledge generated by our research contributes to understanding the empirical condition of performance pay system which will become evident to review the current policy. The findings contribute to improving the cost-effectiveness of the public budget in term of the performance pay system.

Keywords: Civil servants, motivation, performance, performance pay system

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INTRODUCTION

There is a growing trend to study compensation and how it is related to performance of the employee. Compensation systems are an important concern for policymakers in many countries because

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compensation relates to employment morale and apparatus productivity (Pramusinto as cited in Kumorotomo & Widaningrum, 2010). In Indonesia, the compensation system can also be understood as part of the ongoing administrative and bureaucratic reform effort. In practice, however, the compensation system has received less attention in state apparatus management at the national level (Simanungkalit, 2012).

Kumorotomo (2011) stated that the problem of low performance was not due to low salaries; instead, it was caused by a payroll system that was not significantly related to performance indicators. This means that the current compensation system has not made performance as the basis for determining salaries and wages for employees. The existing compensation system still bases the calculation of salaries and benefits according to conventional aspects, such as work tenure. This causes the work climate to be uncompetitive and unable to stimulate employees to improve performance even if an employee has great potential to advance.

However, the compensation system has gradually begun to gain more serious attention within the framework of bureaucratic reform. This is evident from the provision of Performance Pay to Civil Servants (PNS) within the ministries and agencies. The granting of performance pay is a mandate of article no. 5 of *Law of the Republic of Indonesia 2014* about State Civil Apparatus.

According to the Regulation of the Minister of State Apparatus Empowerment and Bureaucracy Reform No. 63 of 2011 (Ministry of State Appparatus Empowerment and Bureaucracy Reform Republic of Indonesia, 2011) on Guidelines for Structuring the Performance System of the Performance of Public Servants, the definition of performance pay is related to the benefits given to civil servants and the amount is based on the performance of the organization where the civil servants work In line with the above definition, the Regulation of the Head of the State Personnel Agency Number 20 Year 2011 on Guidance on the Calculation of Performance Allocation of Civil Servants states that performance pay is the allowance given to a civil servant and the amount is based on the result of job evaluation and performance achievement of the civil servant.

Previous research implies that the performance pay system in Indonesia has not been able to increase the productivity of civil servants. This is at the very least caused by three factors, namely the formulation of a performance pay system that has no direct relation with the performance of civil servants, effectiveness of the performance appraisal instruments in determining the actual performance of civil servants, and principle of merit pay in the performance pay system (Simanungkalit, 2012). Also, a study about performance pay in government agency in Surabaya City, East Java, Indonesia found that there was positive impact of the performance pay to the motivation, discipline, and quality of services (Shiomy, 2014).

The MoEF began applying performance pay in July 2013 based on the Presidential Regulation No. 79 of 2013 on Employee

Performance Pay. The percentage of performance pay in the Ministry of Forestry is 47% of the performance pay value in the Ministry of Finance. After the merger of the Ministry of Environment and the Ministry of Forestry in the end of 2015, the regulation changed with the issuance of the Presidential Regulation No. 139 Year 2015 on Employee Performance Benefits in the Ministry of Environment and Forestry.

The President later increased the percentage of performance pay from the original 47% to 60% in October 2016. The increased is regulated by the Presidential Regulation No. 85 of 2016 on Employee Performance Pay in the MoEF. Until now, there has been no derivative rule at the level of the MoEF that regulates the increase in performance pay so that the previous ministerial regulation named as Regulation No. P.74/Minister - Secretariat/2015 about performance pay is still valid.

Based on Andrianto's (2013) findings, several deficiencies have been noted in the performance pay system which are the system has not been able to fully meet the needs of employees, to encourage motivation, to spur productivity, and to promote productivity and competitiveness compare to the private sector. The cause of the problem is that performance benefits are not based on workload, responsibility, competence, or employee performance. Previous research results also revealed that employee motivation at work is related to the employee's attitudes of discipline applied, exemplary attention from superiors, a sense of justice in the division of tasks, and a conducive working atmosphere and infrastructure facilities in office.

Conceptually, compensation is about all kinds of pay back to the employee monetary or non monetary. Compensation is a function of human resource management that outlines each type of individual payment as a reward for the performance of organizational tasks (Ivancevich & Konopaske, 2013). In line with this definition, true compensation refers to all forms of payment or rewards for workers derived from their work (Dessler, 2014).

Performance pay is an instrument to increase the perfoamnce of the employee. Performance pay is the supplement to salaries awarded to individual employees based on their performance (Worldatwork, 2007). Whereas performance means as an outcome of the job (Bernardin et al. as cited in Armstrong, 2010). In Frederick W. Taylor's view, performance benefits are financial incentives, namely, financial rewards, paid to workers whose production exceeds a predetermined standard (Dessler, 2014). The provision of actual performance benefits as defined by Taylor has been followed, although the methods practiced do not include mental accomplishments, only physical ones (Mutjaba & Shuaib, 2010).

These conceptual foundation related to the motivation theory which are reinforcement theory, expectancy theory and equity theory. Reinforcement theory or learning theory is a stimulus that is use to encoureage employee to create expexted behavior with with different schedule activity (Wei & Yazdanifard, 2014). This

theory requires particular behavior from the employees which make the organization gives reward. On the contrary, the bad behavior of the employees will create punishment.

Expectancy theory and equity theory are also support the understanding of the root of employee motivation. Expectancy theory is a motivation theory that assume cognitive orientation as the foundation of theory (Lawler & Edward, 1973). This theory believes that there is relation between the effort, performance and appreciation that employee obtain (Lunenburg, 2011). Meanwhile, equity theory states that equity is a purpose of compensation (Ivancevich & Konopaske (2013). The aims of the equity are to increase the value of the job so the employee will be interested to work at the organization.

This background underlines that current factual process at the MoEF that will draw empirical evidence about performance pay implementation. Therefore the study about this process which also identifies related factors will increase conceptual discussion about performance pay. In addition, the study about performance pay and related factors will increase the understanding and discussion about the factors which will give positive impact for public managers. Based on this background, this study aims to analyze the implementation of the performance pay system in the MoEF and identify the factors that affect the application of the performance pay system in the MoEF.

MATERIALS AND METHODS

The research paradigm used is post-positivist. First, this study used theory as a reference in analyzing research problems. In practice, the researcher made the operation of the concept so that the analysis of research problems could be carried out appropriately. This is in accordance with the characteristics of the post-positivist paradigm which aims to verify the theory. Second, this study did not carry out hypothesis testing. This is in accordance with the post-positivist characteristics which see that absolute truth is very difficult to find because the data and evidence submitted always cannot be perfect. Third, the used of the post-positivist paradigm is in accordance with the needs of researchers in analyzing research problems that reflect causal relationships. From the analysis it is expected that objective results will be found on the problematic situations.

This research also used qualitative method to gather data. Data collection in this research was performed using two sources which are in-depth interviews and previous documentation. Respondents were selected using a purposive sampling technique, and additional informants were gathered using snowball sampling.

Informant retrieval was done by purposive sampling technique of data sources by considering certain criterias. The next informant is determined by snowball sampling. Neuman (2009) stated that snowball sampling was a multistage technique. It had a number of people or cases and spreads out based on links to the initial cases. The sampling technique in this

study does not aim to form representations or generalizations, but rather the depth of information obtained and can be stopped if there has been a repetition of data.

Determination of informants was based on the criteria of proximity and mastery of knowledge about research problems so that the information obtained was a mirror of real conditions that occured in the field. Furthermore, the selection of informants was based on several considerations, the main criterion was having a minimum work period of two years adjusted to the time limit of the study, namely in the period 2015-2016 and having assignments directly related to performance pay.

All research informants does not work in work units that provide public services. The output of their work is in the form of administrative documents which are not at all related to the community as objects of public service. The output of their work is the basis of organizational decision making. The background of informants are summarized in Table 1.

Table 1
Background of informants

No.	Division	Job Name	Education Level
1.	Human Resource and Organization Bureau	Head of Division of Development and Employee Performance Evaluation	Graduate
2.	Human Resource and Organization Bureau	Head of Sub-Division of Performance Evaluation and Employee Discipline	Graduate
3.	Human Resource and Organization Bureau	Head of Sub-Division of Job Planning	Undergraduate
4.	Human Resource and Organization Bureau	Analyst of Material Evaluation and Functional Job Development	Undergraduate
5.	Human Resource and Organization Bureau	Analyst of Human Resource	Graduate
6.	Human Resource and Organization Bureau	Analyst of Human Resource	Undergraduate
7.	Secretariat of Human Resources Development and Extention Agency	Head of Sub Division of Administrative Functional Job	Graduate
8.	Secretariat of Human Resources Development and Counseling Agency	Analyst of Human Resource	Undergraduate
9.	Center for Human Resource Planning and Development	Analyst of Human Resource Performance Program	Undergraduate
10.	Pusat Perencanaan dan Pengembangan SDM	Analyst of Forest and Land Rehabilitation	Undergraduate
11.	Secretariat of the Directorate General of Climate Change Control	Analyst of Human Resource	Undergraduate
12.	Secretariat of the Directorate General of Climate Change Control	Analyst of Human Resource	Undergraduate
13.	Secretariat of the Directorate General of Climate Change Control	Head of Sub Division of Human Resource Administrative	Undergraduate

Table 1
Background of informants

No.	Division	Job Name	Education Level
14.	Center for Forest Development Financing	Head of Sub Division of Planning and Finance	Graduate
15.	Center for Forest Development Financing	Analyst of Administrative Payment of Remuneration	Associate Degree

The researchers used interactive analysis methods to analyze the data obtained from the field. According to Miles and Huberman (1994), interactive analysis consists of three interrelated paths, namely, data reduction, data presentation, and conclusion. Interactive analysis is cyclical, continuous and iterative process where the researcher steadily moves among these four 'nodes' during data collection and then shuttles among reduction, display and conclusion drawing/verification for the reminder of the study (Miles & Huberman, 1994).

To strengthen the validity of the data, the researchers used triangulation of methods. Triangulation of methods can be done using two strategies which is by checking the degree of confidence in the findings of the research results through several data collection techniques or by checking the degree of confidence of multiple data sources using the same method. The conceptual framework in the Table 2 illustrates the basic theory, variables, and indicators in this study.

RESULTS AND DISCUSSION

Based on the operationalization of the concept, there are four variables: 1) the subsystem of input that includes motivation, leadership direction, efforts, behavior, organizational environment, and organizational support; 2) the subsystem of transformation that determines the performance pay, consisting of job evaluation and performance evaluation; 3) the subsystem of output in the form of the mechanism for giving performance pay; and 4) the subsystem of feedback in the form of process improvement toward a performance improvement system.

Subsystem of Input

Discussion on the subsystem of input consists of four variables, which are reward and punishment, leadership direction, organizational environment, and organizational support. In the reward and punishment variable, based on the interview with Head of Sub Division of Administrative Functional Job, performance pay is considered a reward because it is related to the individual performance of an employee. The researchers understand that this reward is not given in practice. The institution's effort to increase employee motivation to perform has been done through a nominal addition of performance pay as regulated in the MoEF Regulation No. 34 Year 2014. Specifically, the regulation states that employees who receive a performance appraisal with the predicate "very good" will

Table 2
Conceptual framework

Concept	Variables	Sub Variables	Indicators
Performance pay system:	**Sub system input consist of:**		
Performance pay system is a system that supports increased productivity, efficiency, and organizational effectiveness by improving employee performance through compensation based on performance evaluation (linking pay and performance) (Stone, 2011)	Reward and punishment	Reward and punishment towards achievement of performance	1. The amount of reward and punishment value given 2. The level of understanding of employees that reward and punishment will be accepted as a reciprocal for good or bad performance of employees
	Direction of the leadership	The direction of the leadership towards the work / work behavior of employees	1. Knowledge of leaders about the level of achievement of employee performance 2. Knowledge of leaders about the level of employee satisfaction with work (job satisfaction) 3. The ability of leaders to be fair in determining performance benefits 4. The level of care and commitment of the leadership in directing employees about the performance that must be achieved
	Organizational environment	Work environment that supports performance achievement	1. Harmonious relationship both vertically and horizontally 2. Mutual trust both vertically and horizontally 3. Open communication
	Organizational support	Organizational support in achieving performance	1. Dissemination of information about the goals and objectives of the organization 2. Organizational support for the successful implementation of performance benefits
	Role definition	Role definition towards performance achievement	1. Job competence 2. Employee understanding of performance standards and targets
	Sub system transformation process towards determining performance allowances consists of:		
	Job evaluation	Job assesment	Rank of department level
	Performance evaluation	Comparison of performance achievements with performance targets	The level of comparison between the realization of performance and the target (achievement of employee performance indicators)
		Transparency of the performance appraisal process	Transparency in the performance appraisal process

Table 2
Conceptual framework

Concept	Variables	Sub Variables	Indicators
Performance pay system:	**Sub system input consist of:**		
	The output sub system consists of:		
	Effort	Employee efforts towards performance achievement	1. Ability to complete work 2. Performance levels for two consecutive years 3. Workload level
	Behavior	Employee behavior towards performance achievement	1. The level of commitment of employees to achieve the required performance 2. The level of discipline of employees in carrying out their work 3. The level of cooperation between employees
	Mechanism for granting performance pay	Clarity of regulations regarding the provision of performance pay	1. The level of clarity about cutting performance pay 2. The level of clarity regarding the termination of receipt of performance pay
		Assertiveness in giving reward and punishment	Firmness in giving reward and punishment
		Timeliness of giving performance pay	The level of timeliness of receiving performance pay
	4. Motivation	Motivation towards performance achievement	Increase employee motivation in achieving performance targets
		Implications of the good and bad performance of promotion and demotion	The implications of good and bad performance on promotion and demotion
	Sub-system feedback is a process towards improvement of performance pay system	Improved performance pay system	1. Conduct a review / study of the performance pay system 2. Organizational commitment to evaluate performance pay systems 3. Creating improvement mechanism 4. Policy support in the form of relevant regulations

be given an additional benefit. However, after the revision of this regulation to MoEF Regulation No. 74 Year 2015, this reward has been eliminated.

Regarding punishment, the performance pay system at the MoEF uses attendance as an indicator of employee discipline. This indicator determines the nominal benefit to be received. According to the results of interviews with two of the informants, it was found that employees who did not comply with the provisions on filling in the attendance list would get a reduction or deduction of performance pay in accordance with the level of violation committed. This condition implies that there is no specific punishment but there is a reduction of additional benefit or reward. Several studies argue that the usage of reward and punishment will create positive and also negative effect (Irwin et al., 2014). The empirical evidence in MoEF and current studies about reward and punishment indicates that reward and punishment do not always create good impact which implies that public managers should identify its negative side effects.

The reward and punishment in the context of performance pay conceptual framework is in line with the motivative theory. The reforcement theory requires organization to give reward to the high performance employee and on the contrary give the punishment to the low performance employee (Skinner, 1953).

In the case of the variable of leadership direction, in practice, there are still some problems related to leaders' obligation to give directions to their subordinates. First, a less committed leader will build a team based primarily on the attendance indicator. Employees who do not comply with the provisions of attendance as mandated in PP No. 53 Year 2010 will be subject to sanctions in accordance with the level of violation committed. Considering the negative side effect of punishment, further research about employee trust caused by sanction is required.

Second, leaders, through their compassion for their subordinates, may ignore violations by their employees. In addition, employees may also not have a sufficient understanding of the provisions on employee discipline, namely, PP No. 53 Year 2010. Therefore, rule violation often occurs, even on a minimal scale, such as violations of the provisions of employees' working hours.

Meanwhile, in the organizational environment variable, an informant stated that the organization always tries to create a conducive working atmosphere. The preferred way is to form a sense of kinship with both the staff and the higher leaders. In this way, based on the interview with Head of Sub Division of Administrative Functional Job, the bureaucratic barriers formed by the superior–subordinate relationship are lessened because the established communication is no longer merely as superior/subordinate but also as friend/brother (Personal Communication, January 24, 2017).

Relationships based on kinship can shape mutual trust. A leader will entrust responsibility for the execution of a task to

his subordinates. Likewise, a subordinate will believe that his/her leader will act in accordance with expectations. Open communication promotes mutual trust if both superior and subordinate know the specific reasons behind a decision. Both the leader and the subordinate can receive input or suggestions to create performance improvements. Recent study about leadership also underlines this type of leadership as humility character of leader (Seijts & Gandz, 2018)

Then on the variable support organization indicates that there are indicators of dissemination of information related to the goals and objectives of the organization. The data show that each unit always has a special agenda that is used as a medium of delivery of goals, and the goals of the organization change each year. In the MoEF, the media used is coaching of employees. According to the informants, the delivery of the organizational goals and objectives is usually specified from the most common parts of Echelon I to the most specialized parts of Echelon IV.

In relation to the indicators of organizational support for the successful implementation of performance pay, in principle organizational support focuses on reviewing several aspects. First is the review of Workload Analysis (ABK). One informant stated that the preparation of the ABK was only based on the fulfillment of the administrative aspects and did not touch on the accurate calculation. Therefore, the implementation in the following year should reflect the real condition of the organization. Moreover, the ministry institutions have experienced changes marked by the emergence of new work units because of merging the Ministry of Environment with the Ministry of Forestry.

Second is the revision of regulations governing performance pay. The emergence of several weaknesses in the practice of providing performance pay has led to a suggestion to change MoEF Regulation No. P.74 Year 2015. According to the informants, an urgent revision is needed with the adoption of e-performance practices in the State Personnel Board. The existence of e-performance is quite important because previously the payment of performance pay was based on absenteeism, not on performance. The emergence of e-performance will direct incentives to be based on performance and not merely attendance. It is expected that the practice of correctly applying performance pay will boost the improvement of employee performance.

Role definition is the last variable in the subsystem of input. An employee's work competence is also indirectly related to the determination of grade performance pay. Continuing the example above, an employee who is considered competent and then placed as a Functional Position Personnel Analyst will get a Grade 8 performance benefit for the First Personnel Analyst and will stand a better chance of improving to Grade 11 as a Civil Service Analyst. Meanwhile, an employee who is deemed not to have the competencies required in a Functional Position Personnel Analyst will certainly only reach Grade 7 as the highest limit of the Executive's Position.

Furthermore, other informants stated the need for developing standardized positions with regulated performance standards. There will be at least two benefits from the preparation of standardized positions. First, it will encourage the emergence of elements of justice in the provision of performance benefits. Unintentionally poorly designed performance benefits lead to conflicts because employees compare their performance pay to the performance pay of other employees.

Second, standardization is useful as an employee guide in determining performance targets. For employees with a background as Position Executives, performance targets tend to be determined using the old technique, i.e., looking for average levels of achievement in each period of work or even merely estimating it. If the position standard also sets the performance standards, then an employee will find it easier to set performance targets.

Subsystem of Transformation Process

The second subsystem is the transformation process. Discussion about the transformation process subsystem consists of two variables, namely, job evaluation and performance evaluation. Determination of the class of performance pay often creates problems among employees. Three factors were discovered during the interviews. First is the jealousy factor among employees. Employees make personal judgments about their performance compared with that of other employees and become dissatisfied and jealous when they perceive inequities.

Second is a misperception about the seniority factor. There is a false perception that the status of seniority determines the higher level of employment class. Several employees argue that the more senior an employee, the higher the level of performance when compared with other employees, even though this correlation is not always linear.

Third is a misperception about the level of education. There is a mistaken perception that an employee with more education will demonstrate higher performance. As explained above, however, the granting of job performance pay class is based on the results of job evaluation and the performance of each employee.

The fourth issue is the decline of the class position for employees with civil servant on probation period status (CPNS) unilaterally. The decline in the position class for CPNS was caused by the change of position. However, there is no rule that ordered the decrease of class position for CPNS.

Next, in terms of performance evaluation, there are two sub-variables: the comparison of performance achievement with employee performance targets and the transparency of the performance appraisal process. In the first sub-variable, there are several factors related to the application of SKP. SKP is a tool for performance measurement in the Indonesian bureaucracy. First, starting from the beginning of 2014 until today, there is inadequate understanding regarding the importance of SKP. So far, SKP is still seen as a formality or an administrative requirement, and the content of SKP still needs a lot of improvement.

Second, there is still subjectivity in assessing employee performance. SKP was expected to eliminate the element of subjectivity that occurred in the assessment of the DP3 model (List of Employee Behavior Assessment), but it was not effective. This is contrary to the principle of performance appraisal that should be based on the element of objectivity as mandated in article no. 3 of PP. 46 Year 2011.

The occurrence of subjectivity in conceptual performance appraisal is one of the errors or problems of rating systems (Ivancevich et al., 2013). By following opinions in this context, the problem of subjectivity arises when the following problems occur. First, personal bias error, where judgment is based on likes and dislikes (Murphy, 2015). Appraisers will tend to give a high value to people they like and low ratings to people they dislike.

Second, the fact that the recentness of events imposes error. Assessors tend to judge events that have just occurred and do not consider events that have happened longer ago. Third, central tendency errors are an issue. Assessors often assign ratings with a central value, avoiding high or low ratings. Appraisers prefer to provide an average value for all their employees. Fourth is the problem with evaluation standards in general. This problem arises because of differences in perception of the intent of the words used to evaluate employees.

Meanwhile, in terms of transparency of the performance appraisal process, the informants stated that the performance appraisal process has been conducted transparently. Leaders are willing to explain the reasons behind the ratings they give. Leaders are also open to advice and accept input submitted by subordinates related to the values in performance measurement. Moreover, supervisors go directly to subordinates to discuss low ratings.

Subsystem of Output

Discussion on the subsystem of output consists of four variables, namely, effort, behavior, the mechanism of giving performance pay, and motivation. In the variable of effort, an informant stated that his efforts to achieve his performance targets are constrained by factors of mismatch between the competencies he has and the day-to-day work done (Personal communication, January 23, 2017). According to the informant, as a Bachelor of Forestry, he should find work related to forestry engineering in accordance with his original position as a Forest Rehabilitation Analyst. In reality, the work he does daily is related to human resource planning and development. On the one hand, he recognizes that this discrepancy has a positive impact because he can gain new experiences and knowledge. On the other hand, it has a negative impact because he has difficulty in pursuing the set performance targets.

Associated with the level of workload, an informant stated that his workload is not in accordance with the real conditions in the unit of organization (Satuan Kerja). With the number of existing employees and the ongoing process of organization unit staffing arrangements in the region, the

level of existing workload is considered not in accordance with the real needs. Several informant statements can be understood from the perspective of credit score collection targets. Indirectly, one informant pointed out the inaccuracy of his placement with a background as a Functional Position Personnel Expert Analyst at the Secretariat of the Directorate General of Climate Change Control.

Some research findings based on the interviews point to behavioral variables. One informant stated that to achieve a level of performance in certain conditions requires him to do tasks outside his main task as a Personnel Analyst. This is due to the difficulty in collecting credit numbers when relying only on the activities within the scope of the unit of organization (Satuan Kerja). This is often encountered in practice; for example, a committee member taking a CPNS exam and becoming a member of the credit score assessment team.

Furthermore, regarding the indicators of employee discipline level in carrying out work, the same informant stated that his work in arranging the administration of performance pay requires a high level of discipline concerning the accuracy of payment of performance pay set by the deadline of before the 10th of each month.

Related to discipline, the Head of Sub-Division of Job Planning stated that the first most important stage is an employee's willingness to come to the workplace (Personal communication, January 18, 2017). At this point, performance benefits motivate employees to want to come to office on time. After that, the leader gives directions related to the implementation of duties.

Regarding the indicators of the level of cooperation among employees, Analyst of Human Resource Performance Program stated that the cooperation that exists both internally and externally runs well (Personal communication, January 23, 2017). Informants who are employees at the Center for Planning and Human Resource Development (Pusrenbang SDM) described the attitude of mutual help in doing certain tasks that are sometimes hindered by the limited human resources and budget.

Discussion on the variable of performance pay mechanism consists of three sub-variables, namely, the clarity of regulations on the provision of performance pay, the firmness in reward and punishment, and the timeliness of the performance pay. In clarity of the regulation concerning the provision of performance pay of MoEF Regulation No. P.74 Year 2015, it can be seen that a reduction in performance pay will affect employees in the following categories: (1) employees who do not meet the provisions of attendance; (2) employees with the status of "learning tasks"; (3) employees with the status of "study tasks"; (4) employees with extension status of the learning period; (5) employees who cannot collect the required credit score; (6) employees taking leave; and (7) employees subject to disciplinary sanctions. Each category will get a reduction whose magnitude will range from 0.5% (for an attendance infraction) to 90% (for an

employee subject to severe disciplinary sanctions). The informant stated that the provisions on the reduction of performance pay payments in practice are well known. The informant understands that any violation of the rules will result in a reduction; it could even lead to a termination of performance pay payments.

Regarding firmness in reward and punishment, based on the results of the interviews with a Personnel Analyst and a Personnel Officer at the Bureau of Personnel and Organization, the implementation of punishment has been done firmly. This means that when an employee does not actively submit evidence of absence, which may be a valid certificate, a reduction in the performance pay payments will be made. A similar opinion was conveyed by a Personnel Analyst at the Secretariat of the Directorate General of Climate Change Control.

As for the timeliness of performance pay, it can be seen that the giving or payment of performance pay has been done in a timely manner. This is in accordance with the provisions of article no. 22 of MoEF Regulation No. P.74 Year 2015, which mentions the payment of performance pay conducted every month by officials who handle the functioning of personnel.

Further, for the motivation variable, the discussion consists of two sub-variables: the motivation toward the achievement of performance and the implications of poor performance on promotion and demotion. In terms of motivation toward achievement of performance, in general, employees see that the provision of performance pay is the same as the routine salary received every month. Therefore, they feel that performance pay will not change with improved performance. Furthermore, informants stated that employee performance remained stagnant, and the pay was not influencing performance, not even ensuring good attendance. In this case, cuts in performance pay also do not have a significant impact on employee motivation. Any amount of accumulated deduction of performance pay is not considered a problem because of the assumption that the performance pay only serves as a revenue increase to take home pay.

Regarding the change in mindset, from an assessment of the implementation of the bureaucratic reform of the MoEF, the process is not yet effective. There are not yet systematic and consistent improvements in work mechanisms, mindset, and culture. Thus, the provision of performance benefits for some unit of organization (Satuan Kerja) has not increased employee motivation at work.

However, there are also employees who feel that the performance benefits are relatively equal when compared with other sources of income. The difference is that the performance pay must be regularly paid every month while the other sources of income are not necessarily received every month. In this case, the provision of performance pay tends to increase employee motivation to attend work; this, at least, prevents them from violating the terms of working time. This condition can be found

at work units that have budget limitations for official travel and meetings.

The influence or implication of performance on promotion and demotion is also found in this variable. Promotion is one form of reward recommended by experts such as Perry and Petrakis (1988). Promotion is one of the key elements that will determine the successful implementation of a performance pay system. Promotions intended in this context are promotions and/or better positions. On the contrary, for employees who perform poorly, the consequence is the imposition of sanctions or demotion. Like promotion, demotion is one of the key elements that will determine the successful implementation of a performance pay system. In practice, both good performance and poor performance are considered for promotion and demotion.

Subsystem of Feedback

In terms of the subsystem of feedback, the interviews indicated that there has never been a study specifically directed to evaluate the performance pay system in the MoEF; however, in practice, every working unit directly related to both the Civil Service and Organizational Bureau as well as the Echelon-level technical unit of organization (Satuan Kerja) has the current system. In addition, an assessment of the implementation of bureaucratic reform has been conducted by external parties. Those assessments can be used as feedback for improvements to the current performance pay system.

In addition, results of the analysis found that there were several factors that affect the implementation of the performance support system in the MoEF, namely, employee commitment, job evaluation, leadership commitment, performance evaluation, and the funding system, as described below.

Employee Commitment. The importance of employee commitment in the application of the performance pay system is in line with previous research findings (Murphy, 2015). In addition, previous research also mentioned the need to build employee commitment by generating employee motivation. Thus, employees will be able to achieve performance targets.

The commitment of employees to not only work but to also achieve performance targets is influenced by the internal and external factors of the employee. Internal factors are related to the willingness of employees to build themselves in accordance with their competences. The ability to work together and the willingness to help other employees are also signs of employee commitment. On the external side, employee commitment is related to the way the institution generates employee motivation. In this case, rewards are designed to affect commitment.

Evaluation of Position. In the context of the provision of performance pay, job evaluation plays a role in determining the starting grade or the reassignment to a higher grade. Positions with a high workload get a higher class of position. Conversely,

a job with a low workload will get a low-ranking grade.

Based on the above information, accurate job evaluation will reduce the incidence of inter-employee sentiment problems that arise due to different class positions assigned. The result of job evaluation is the logical reason behind the determination of the position class for all employees. Therefore, evaluation of positions will help find the employee who best suits the positions.

Commitment of Leader. In this context, there are two interrelated leader roles. First, the leader acts as a mentor to their staff. Second, the leader acts as a decision maker. Efforts to improve the performance pay system will not work well without the leader's support because leaders ultimately decide on and prioritize efforts.

Performance Evaluation. The use of SKP as a tool to measure performance needs serious attention. In practice, several problems were highlighted. In system construction, SKP is better than DP3; however, if its problems are not immediately addressed then it will increasingly complicate efforts to improve it. Fair performance assessment will be able to determine the success of applying performance pay (Kim, 2016). This is certainly in line with the intent of using a 360-degree appraisal approach.

Funding System. The funding aspect affects the sustainability of the performance pay policy in the Ministry of LHK. This is related to the commitment of each agency at the Echelon I level to meet budget efficiency in accordance with the mandate of Article 1 of the Minister of Industry Regulation No. 63 Year 2011. The availability of funding relates to the timeliness of payments of performance pay. However, the timeliness of payments from the perspective of reinforcement theory is very important.

CONCLUSION

This study concludes that the application of the performance pay system in the MoEF has not been effective in supporting the improvement of employee performance. Factors influencing the implementation of the performance support system in the MoEF include employee commitment, job evaluation, leader commitment, performance evaluation, and funding system.

Therefore, as an effort to overcome a number of problems in applying the performance pay system at the MoEF, the following alternative solutions can be applied: (1) a reward and punishment system, in which the value is adjusted to the level of employee performance achievement; 2) an effort to align performance pay system with employee performance; 3) a job performance standard and rater training to justify the analysis and also the paradigm change to assess performance as the baseline of performance pay system 4) adjustment of the implementation of e-performance by taking into account the internal needs and conditions of the MoEF; 5) the creation of a pilot project work unit that will serve as a guide for other working units in the scope of

its work; and 6) a review of the evaluation of the implementation of the existing performance/performance pay system.

Factors influencing the implementation of the performance support system in the MoEF should be prioritized in the process of improving the existing performance pay system. Therefore, the following alternatives are needed: 1) to encourage employees' commitment in achieving performance targets using rewards and punishments related to performance achievement; 2) to prepare job evaluations based on the dynamics of the position; 3) to encourage the commitment of leaders through reward and punishment associated with performance achievement; 4) in performance evaluation, to formulate performance standards and change the performance appraisal approach, especially for PKP assessment; and 5) in order for the financing of performance pay to be satisfied, to make consistent the efficiency and effectiveness of various program budget items.

Understanding the result of the study, there are several contribution or impact of this study. The knowledge generated by our research contributes to understanding the empirical condition of performance pay system which will become evident to review our current policy. The findings contribute to improving the cost-effectiveness of the public budget in term of the performance pay system. Further research about the best practices about performance pay and the enabling factors of the system is required.

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A Model of Multi-Layered Collaborative Governance for the Management and Restoration of the Ciliwung Watershed Ecosystems

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ABSTRACT

The Ciliwung watershed is a national critical watershed which needs integrated management and restoration efforts. There are miscellaneous actors (government, private sector, and civil society), which create significant institutional complexity. To overcome this problem, a proper governance system to encourage an integrated approach to watershed ecosystems management and restoration (WEMR) is necessary. This research seeks to develop a proper multi-layered collaborative governance model for the Ciliwung WEMR using policy hierarchy theory and the life cycle of collaboration. This is a qualitative research and utilizes Soft Systems Methodology (SSM). Data were obtained through in-depth interviews, literature study, and focus group discussions. Research results illustrates how a multi-layered collaborative governance runs in the policy level, organizational level, and operational level. The result helps to reconstruct policy hierarchy theory, in which the authors developed interlinkages to connect all policy hierarchies. The model also needs quick wins and small wins as adjustments to a "good enough" governance approach. The research concludes that political work intervention in the Ciliwung WEMR is substantially important, in addition to the processes of technical-managerial works.

Keywords: Good governance, multi-layered collaborative governance, policy hierarchy, political work, watershed ecosystems management and restoration (WEMR)

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INTRODUCTION

Ciliwung is one of the most important watersheds in Indonesia. It streams from West Jawa Province (Bogor Regency, Bogor City, and Depok City) and crosses Indonesia's capital city, Jakarta, such that it plays a strategic role in affecting the center of administration of Indonesia. Nevertheless, the Ciliwung watershed has now become critical and categorized as a national priority watershed in the National Medium-Term Development Plan for 2015-2019 (Government of Republic of Indonesia, 2015). Research from the Center Facility of Environmental Impact Control (2011) showed that the Ciliwung watershed suffered from ecosystem degradation and water quality reduction as a result of land use changes, river sedimentation, and waste and garbage contamination.

The Ciliwung watershed has complex conditions because it is a cross-provincial watershed. Consequently, the watershed is managed by a variety of government agencies at national, provincial, and regency/city levels, but without coordination or collaboration of these government entities. Several studies assert that such institutional complexity has led to the failure of Ciliwung watershed management, because each agency works sectorally without coordination or synergy (Karyana, 2007; Saridewi et al., 2014; Suwarno, et al., 2011). The dynamics become even more complex with the addition of NGOs and private companies who have vested interests in the Ciliwung watershed areas.

A watershed is a very spread out and delicate ecosystem, so its management and restoration should be modeled as a complex and dynamic system that addresses physical, biological, and social systems (Maryono, 2007). Hence, management and restoration efforts should not be partial or sectoral (Heathcote, 1998; Maryono, 2007). Existing research shows that watershed management in Indonesia is still partial (Karyana, 2007; Suwarno et al., 2011; Wibowo, 2013). Therefore, Ciliwung watershed ecosystem management and restoration (WEMR) needs coordination and harmony between central and regional governments. Research from Saridewi et al., (2014) also indicated that the key to successful watershed management was to invite and include public participation, because a watershed is perceived as a common resource.

The key to success for the Ciliwung WEMR is to create a comprehensive and integrated management system that is authorized to enforce conformity and collective actions starting from upstream and reaching all the way to the downstream area. Therefore, there must be interaction mechanisms to minimize any negative impacts from collective actions by the actors. The problem of collective actions can be dealt with by implementing a governance mechanism to unite all interests by gaining common consensus, so that it can optimize the benefits that can come from collective actions (Young, 2009). The implementation of governance systems that are concerned with consensus would encourage stakeholders to involve in the decision-making process.

If applied correctly, it would generate positive solutions to dynamic and complex public problems, including WEMR. The reinforcement of governance can be done through collaborative governance. Collaborative governance is a new paradigm in governance study. The most-cited paper on collaborative governance is from Ansell and Gash (2007). According to them, the strategy of collaborative governance began to develop in the 1980s. This mode of governance brings multiple stakeholders together in common forums with public agencies to engage in consensus-oriented decision-making. Ansell and Gash (2007) added that collaborative governance was a governing arrangement where one or more public agencies directly engaged non-state stakeholders in formal collective decision-making processes that were consensus-oriented and deliberative with the goal to make or implement public policy or manage public programs or assets.

A broader definition was conveyed by Emerson et al. (2011), as governance of the processes and structures of public policy decision-making and management that engaged people constructively across the boundaries of public agencies, levels of government, and/or public, private, and civic spheres in order to carry out a public purpose that could not be accomplished otherwise. A similar definition was expressed by Morse and Stephens (2012). Morse and Stephens (2012) defined collaborative governance as an umbrella term that encompassed various interweaving strands of public administration scholarship including inter-governmental and inter-agency collaboration, regionalism, cross-sector partnerships, public service networks, consensus-building, and public engagement.

In implementing a succesful governance, it needs "glue" that binds the actors and integrate the processes. Governance glue is mentioned in some literatures, for instance in Allmendinger (2011), Ghani and Lockhart (2008), and Powell (1990). It is stated that the interpersonal facets such as trust, reciprocity, and mutual benefit are the "glue that bind" the governance (Powell, 1990). Ghani and Lockhart (2008) declared the rule of law as a "glue" that bound all aspects of the state, the economy, and society. Meanwhile, Allmendinger (2011) expressed that planning was a form of 'governance glue' that coordinated and integrated across and between scales and sectors. Specifically, Allmendinger (2011) mentioned spatial planning as governance glue.

In Ciliwung watershed management, both government and non-government organization still struggling with problems that hinder the progress of its implementation. Based on previous research from Sani et al. (2017), there are three problems linked to Ciliwung watershed at the organizational level that can be identified. Firstly, there is conflict of interest among actors. Then, collective commitment for integrated watershed ecosystem management and restoration is sufficient. Lastly, integrated institutional arrangement is not effective. These problems are considerably disturbing the implementation of governance.

Collaborative governance is a solution to ameliorate the degradation Ciliwung watershed faces. It will help to achieve government aims for the watershed. From several acts which regulate natural resources, there are three strategic aims of watershed management. First, restoring watershed functions, such as environmental function, water resource supply, or rehabilitating water destruction force. Second, restoring ecological and conservation functions, wherein watershed is a source of biodiversity, flood control, and water purification. Third, strengthening social, cultural and economic function of the communities.

In country like Indonesia, public also should be a major part of governance mechanism as stated by Young (2009), because the public has a big contribution to Ciliwung watershed degradation through their daily activities. The governance mechanism then should also focus on the cultural context. The availability of sufficient laws and guidelines also will strengthen the governance mechanism. Based on the problem of institutional complexity, then our research question is, "What is the proper model of a multi-layered collaborative governance (MCG) for the Ciliwung WEMR?" If the problem of institutional complexity is not resolved, the quality of the ecosystems in the Ciliwung watershed will continue to degrade and worsen in the future. This research endorses the theme of MCG because the Ciliwung WEMR is a public policy that lies in a variety of layers of policy hierarchy (Bromley, 1989) that includes a policy level, an organizational level and an operational level and involves a myriad of actors, as shown in Figure 1.

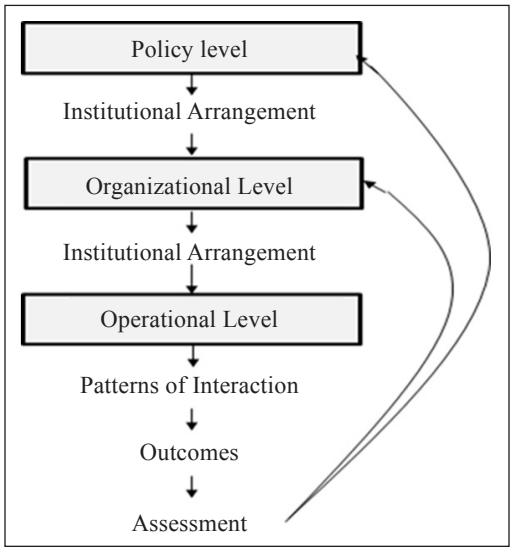

Figure 1. Policy hierarchy

In a policy process that relates to institutional change, there are three levels of policy hierarchy: 1) the policy level enacts a process to discuss a vision or future expectation which can then be formulated into a regulation; 2) the organizational level develops processes to create organizational capacity and rules to support the vision from the policy level; and 3) the operational level is where the interactions and physical actions are conducted to produce outcomes, some good and some bad, that directly affect the public. The actions and choices of the actors at the operational level are confined by institutional arrangements at the policy and organizational levels.

The policy level is represented by the Legislative and the Executive as arms of government. The organizational level is reflected by the Executive agency (Ministry/

Body for Central Government and Local Agency for the Local Governments). The operational level is comprised of a daily unit in a community that includes government, local government, industries, and communities. Theoretically, the connection among the three policy hierarchies can be seen clearly at the operational level, because the options at this level are regulated by institutional arrangements fixed at the policy and organizational levels. Actors from the operational level are allowed to give input and make corrections to strengthen the institutional arrangement.

This research also aims to identify work intervention to strengthen the model of MCG. The success of collaboration is determined by proper work intervention to establish and nurture collaboration. Senge et al. (2007) proposed three work interventions to strengthen the success of collaboration, which were built based on a systems-thinking framework (systemic collaboration). The first, conceptual work, is the activity of making sense of complex issues related to sustainability issues. The second, relational work, is important for building collaboration because its success depends on the quality of relationships, mutual trust, interdependency and common learning. The third is action-driven work. Conceptual work and relational work are effective for collaboration, but it is more important that these two work interventions carry the actions to a new level. Therefore, if action-driven work can be consolidated with conceptual and relational works, it could be effective at producing a new systematic and personal approach compared with the change planned by a traditional approach. The three work interventions proposed by Senge et al. (2007) are not sufficient to make collaboration effective. Silalahi (2011) argued that it needed to include institutional work, which was associated with the role of collegial leadership in an intra-organizational collaboration.

Besides proper work interventions, the other thing necessary to build MCG from the early stage is to correctly recognize political conditions related to crucial public policy processes, including how to notice what challenges may arise. The authors believe that the model of bureaucratic politics from Peters (2001) is suitable to be the reference. Table 1 summarizes the four arenas involved in the model. First, internal-formal administrative politics is a relationship between senior officials and political appointee (minister/cabinet member). Second, external-formal administrative politics is related to the process of public budgeting, as well as the politics of public accountability. Third, internal-informal administrative politics is associated with the relationship between pressure group and public administration in shaping policy. Fourth, external-informal politics is an arena in which interest groups, public at large, and public bureaucrats obtain support for programs and budgetary process.

This theory explains the typologies of political works that can be conducted either by politician and bureaucrat, starting from formal to informal arena, and from internal to external milieu of the organizations. The scope of actors in this model is also wide, ranging from elite politicians to

street activists from the community. This model is very suitable with this research, which examines collaborative governance processes at policy, organizational, and operational levels.

Table 1
Types of bureaucratic politics

			External
Formality	**Formal**	Administrator/ Minister Relationship	Budgeting/ Accountability
	Informal	Administrative Lobbying	Clientele Support

METHODS AND MATERIALS

This research explores the social interactions of the actors to formulate a bigger picture and means for such interactions, and then reconstructs it into MCG model. Therefore, the paradigm of this research is interpretive social science (Neuman, 2006). This is qualitative research to understand the role and interaction of people involved in the Ciliwung WEMR. Based on the problem and research purpose, this research applies SSM, which is useful to develop an effective model of MCG.

According to Checkland (1999), there are seven stages in SSM. The first stage is to capture the problematic situations through interviews with the problem owners. At the second stage, the researcher develops a Rich Picture to capture the various perceptions and the complexity of the problems. At the third stage, the researcher creates root definitions using the mnemonic CATWOE (Customer, Actors, Transformation, *Weltanschauung*, Ownership, and Environment). At the fourth stage, a conceptual model is built upon the identified problems. The fifth stage then compares the conceptual model to real world conditions. At the sixth stage, the researcher introduces the conceptual model to the related parties to receive corrections. Finally, the seventh stage is implementing the model to resolve the research problem. The seven stages are summarized as in Figure 2.

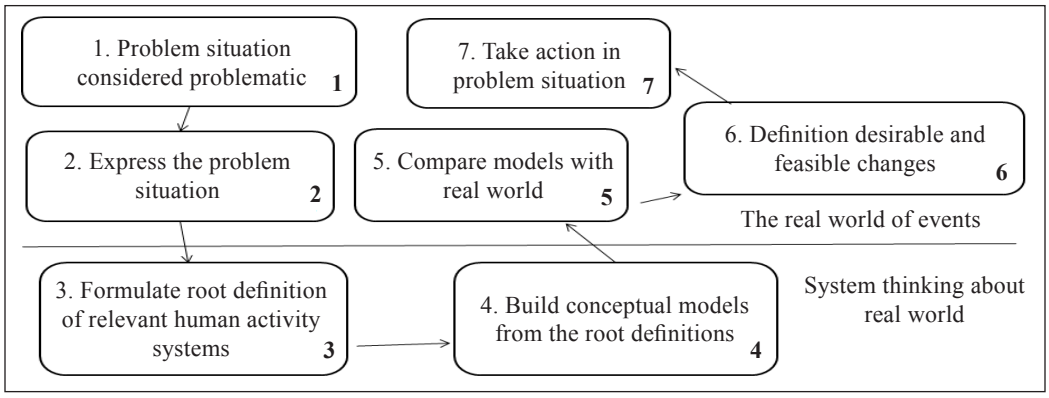

Figure 2. The stages of soft systems methodology

The data used in this research is primary and secondary data. The primary data were obtained through purposive in-depth interviews with twenty-seven participants: eleven government officers, three members of DPR RI, eight local government officers, four participants from non-governmental organizations (NGOs), and one academician from University of Gadjah Mada. The secondary data are documents related to the Ciliwung watershed which are The Report on the Ciliwung River Plan (Ministry of Environment, 2012), The Action Plan on Water Quality Enhancement of Ciliwung Watershed (Local Environmental Agency of DKI Jakarta Province, 2012), The Master Plan on Pollution Control and River Water Quality Restoration in DKI Jakarta (Local Environmental Agency of DKI Jakarta, 2012), and Integrated Ciliwung Watershed Management Plan (Ministry of Forestry, 2013).

To build the MCG model using SSM, the data was collected and also tested through focus group discussions (FGD) with eleven participants: four officials from the government, one participant from local government, three academicians, and three participants from NGOs. In the FGD, participants gave input to improve the validity of the conceptual model.

RESULTS AND DISCUSSION

The mapping of the actors shows the diversity involved in the Ciliwung WEMR. Generally, they can be categorized into three categories as listed in Table 2.

There are miscellaneous agencies in Ciliwung WEMR and each agency has its own authority and resources. In organizational level, the distribution of tasks and authority should be identified clearly before executing the management and restoration effort. This tasks and authority can be regulated in a master plan. In fact, there is no master plan which detailing the tasks and authority of each agency.

The authority for arranging and coordinating national development plan is owned by National Development Planning Agency. But, according to article no. 16 of *Presidential Regulation 2015* on MoEF,

Table 2
Categories of actors in the ciliwung WEMR

Organizations		Actors
Non-Executive Government		The Legislative (DPR RI), the Audit Board of the Republic of Indonesia, and local Parliament (DPRD)
Executive Government	National	Ministry of Environment and Forestry (MoEF), Ministry of Public Works and Public Housing (MPWPH), National Development Planning Agency, Ministry of Finance, and Ministry of Agrarian Affairs and the Spatial/National Land Agency
	Provincial	DKI Jakarta and West Jawa
	Regency/City	Bogor Regency, Bogor City, and Depok City
Non-Government	Interest Groups	Industry, NGOs, universities and research center, grassroots movements, and international actor

in watershed issue, MoEF has a mandate to coordinate and synchronize the other ministries/bodies. MoEF is authorized to arrange master plan of Ciliwung watershed and lead the processes, with coordination with National Development Planning Agency, MPWPH, Ministry of Finance, Ministry of Agrarian Affairs and the Spatial/National Land Agency, and Local Governments (DKI Jakarta Province, West Jawa Province, Bogor Regency, Bogor City, and Depok City).

Research results show that the actors in the Ciliwung WEMR have not implemented their roles optimally at the organizational level or the operational level. The relational work is relatively weak. They do not have a collectively agreed upon master plan. None of them, especially the government, view the watershed comprehensively, as concluded below:

> "There are too many activities conducted in Ciliwung watershed. However, all actors launched their programs individually based on their sectors and authorities. We need a comprehensive planning policy which triggers collaboration at national and local levels."
>
> (Personal communication, November 16, 2015)

Some Government Agencies such as MoEF, MPWPH and DKI Jakarta Provincial Government have released Planning Documents regarding Ciliwung watershed. From those Planning Documents, general pictures that can be drawn are: 1) each Planning Document was arranged by each Agency without involving the other stakeholders comprehensively; 2) each Planning Document is created merely for internal guidance for each agency; and 3) the Planning Documents have not specified clearly the task for each agency. As a result, none of the Planning Documents become a common reference for the Government Agencies. This reflects that collective work has not been built properly.

The diversity of actors and complexity of problems should be managed by a proper MCG model. Referring to the formulation of systems activities in SSM and the three levels of policy hierarchy, the authors chose three system/subsystems and one activity system that they considered useful and relevant to develop a MCG model for the Ciliwung WEMR: a) System/Subsystem Number 1, to reconstruct the concept of MCG model at the policy level; b) System/Subsystem Number 2, to reconstruct the concept of MCG model at an organizational level; c) System/Subsystem Number 3, to reconstruct the concept of MCG model at an operational level; and d) the whole system (System Number A), to reconstruct the concept of MCG model at all policy hierarchies. Frankly, Systems Number 1, 2, and 3 are individuals and independent systems, but at the same time they could also be subsystems of System Number A (the whole system). So, the authors are calling them System/Subsystem.

In developing the MCG model, the authors used a life cycle paradigm from Sullivan and Skelcher (2002) as depicted in Figure 3. In this model, collaboration

is built sequentially: 1) pre conception, a process when all parties realize the benefits or the necessity of cooperation; 2) initiation, a process of discussion and negotiation to build commitment to cooperation; 3) formalization, a process when a structure of governance is agreed upon and collaboration is declared as a form of identity; 4) operation, a process of implementing all activities in the collaboration; and 5) termination, a process to stop, transfer or transform the collaboration.

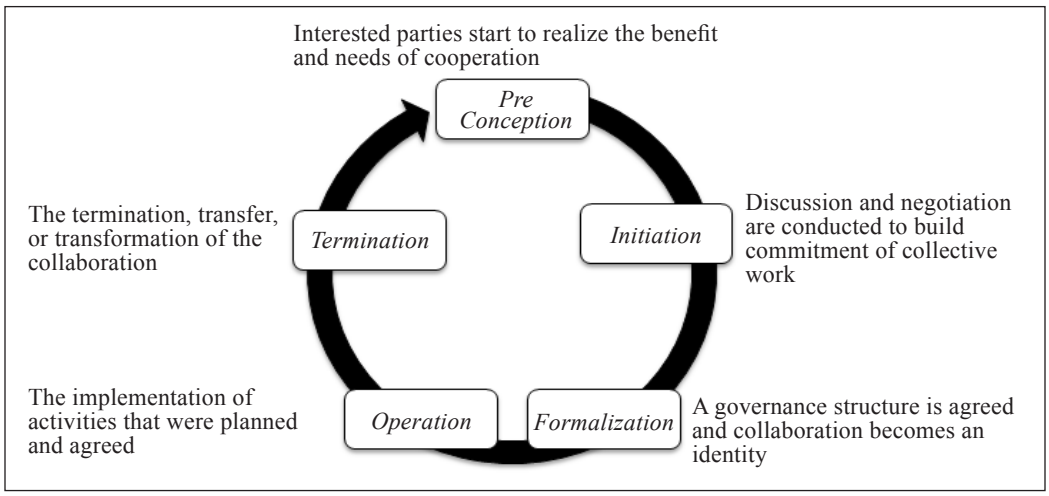

Figure 3. Life cycle paradigm

MCG Model at the Policy Level

By focusing on System/Subsystem Number 1, this section builds a model to reconstruct the concept of the MCG model at the policy level. This model is recovered from stages 3 and 4 of SSM. Success at the policy level will also determine the level of success at the organizational and operational levels. Institutional arrangements at the policy level will shelter all framework in the Ciliwung WEMR. This process produces political decisions, because it is decided through the highest political process which involves the Legislative and the Executive representatives. Output at the policy level will define the institutional arrangements for the organizational level and actions at operational level.

At the policy level, conditions, authority, mandates, and resource allocation, including funding, are determined politically to strengthen efforts at the organizational and operational levels. Some important activities at the policy level are: 1) formulating integrated policies for the Ciliwung WEMR; 2) allocating resources and budgeting; and 3) monitoring and evaluating policy and program implementations. Human activities in the MCG model at the policy level, at every stage based on Sullivan and Skelcher (2002) are summarized in Figure 4.

Based on those human activities, the MCG model at the policy level is summarized in Figure 5.

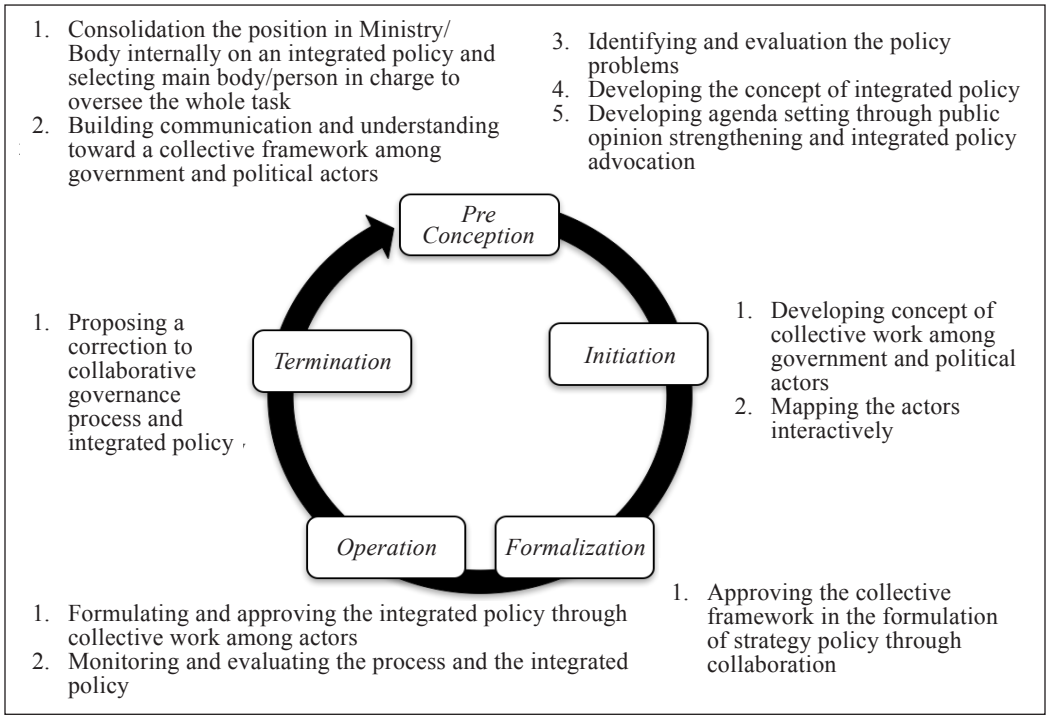

Figure 4. Human activities of the MCG cycle at the policy level

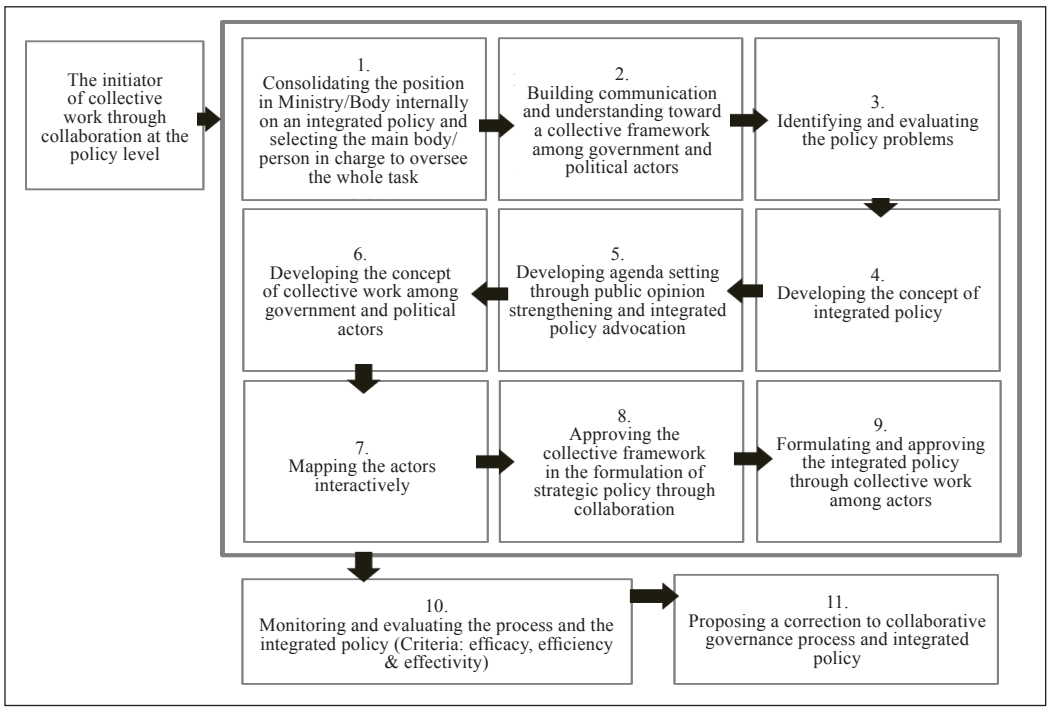

Figure 5. MCG model at the policy level (System/Subsystem Number 1)

MCG Model at the Organizational Level

At the organizational level, the activities for the Ciliwung WEMR are conducted to implement policies made at the policy level. Some actions that have to be conducted are: preparing the steps to implement policies related to the strategic plan; organizing role distribution, responsibilities, and resource allocation; and work mechanism and the evaluation of target achievement. Generally, the steps at the organizational level are: 1) formulating the strategic plan, 2) making institutional arrangements and organization, and 3) monitoring and evaluating the achievement of the goals of the strategic plan. The human activities at the organizational level based on Sullivan and Skelcher (2002) are summarized in Figure 6.

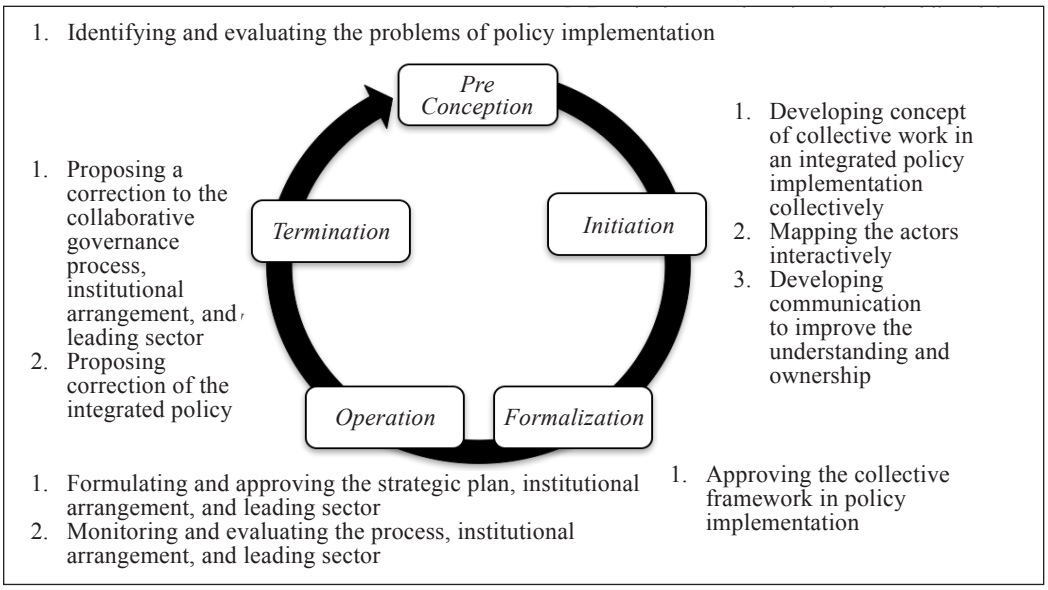

Figure 6. Human activities of the MCG cycle at the organizational level

Based on those human activities, the MCG model at the organizational level is summarized in Figure 7.

MCG Model at the Operational Level

The Ciliwung WEMR at the operational level implements the steps that have been approved at the organizational level to enforce policies formulated at the policy level. Those steps are formulating the strategic plan in the grassroot, implementing collaborative work in the grassroot, and monitoring and evaluating the implementation of collaborative work in the grassroot. The human activities at the operational level based on Sullivan and Skelcher (2002) are summarized in Figure 8.

Based on those human activities, the model of the MCG for the Ciliwung WEMR at the operational level is summarized in Figure 9.

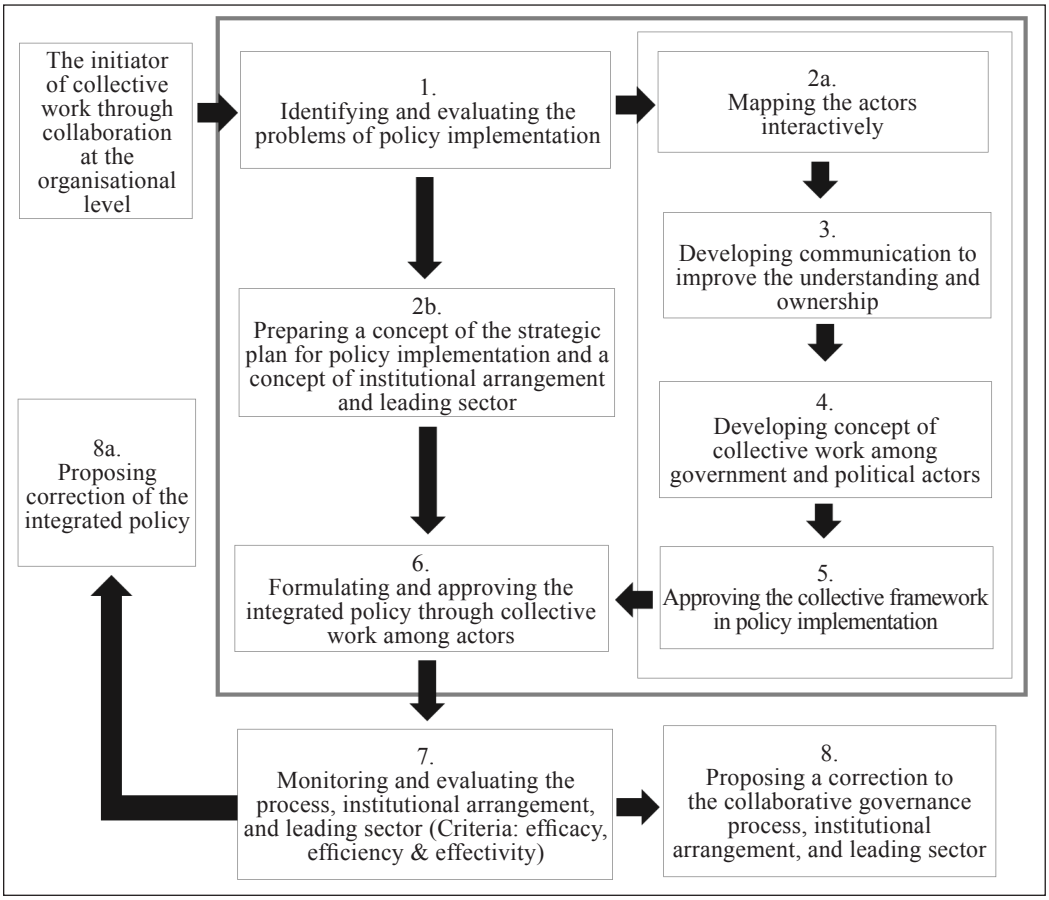

Figure 7. MCG model at the organizational level (system/subsystem number 2)

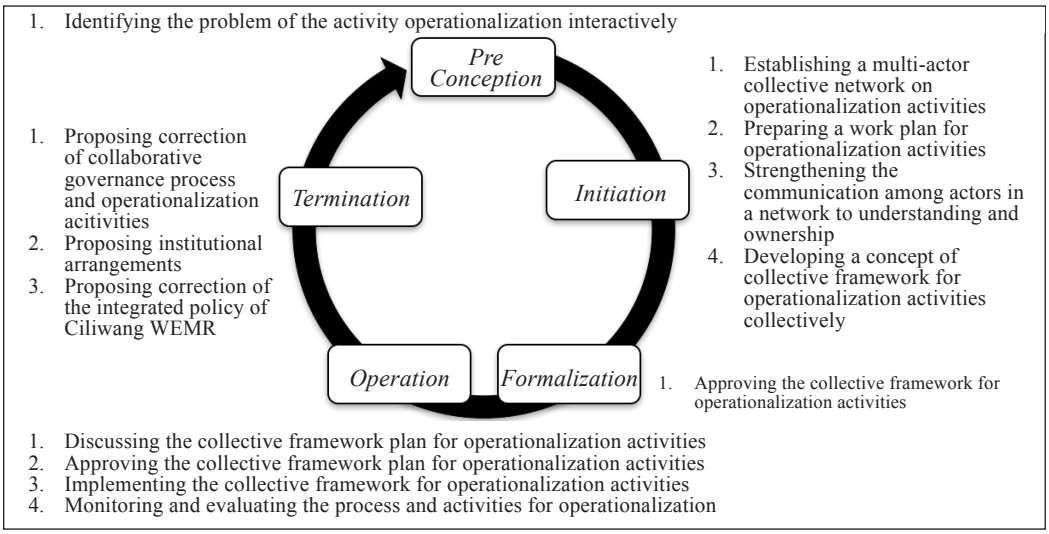

Figure 8. Human activities of the MCG cycle at the operational level

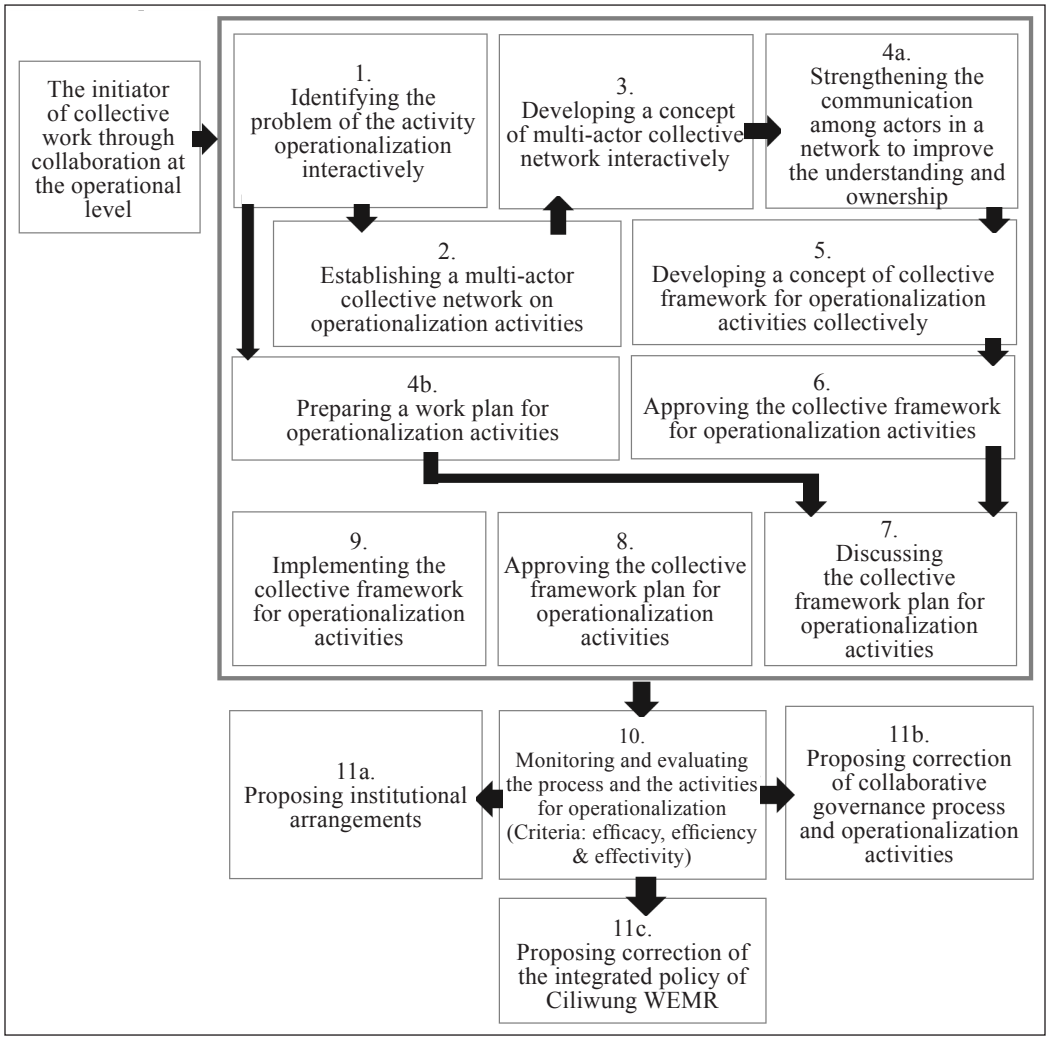

Figure 9. MCG model at the operational level (system/subsystem number 3)

The Whole Model of the MCG

Based on all of the human activities in the MCG, the authors have created a whole system of the MCG model. The whole model is created using four stages that are understanding the Ciliwung WEMR at its policy level, understanding the Ciliwung WEMR at its organizational level, understanding the Ciliwung WEMR at its operational level, and reconstructing the concept of MCG. Systematically, the overall steps that must be performed are summarized as in Figure 10.

Based on those steps, the whole model of the MCG can be seen in Appendix 1. That model shows the relationships among System/Subsystem Number 1, System/Subsystem Number 2, and System/Subsystem Number 3 as they affect the formulation process and policy

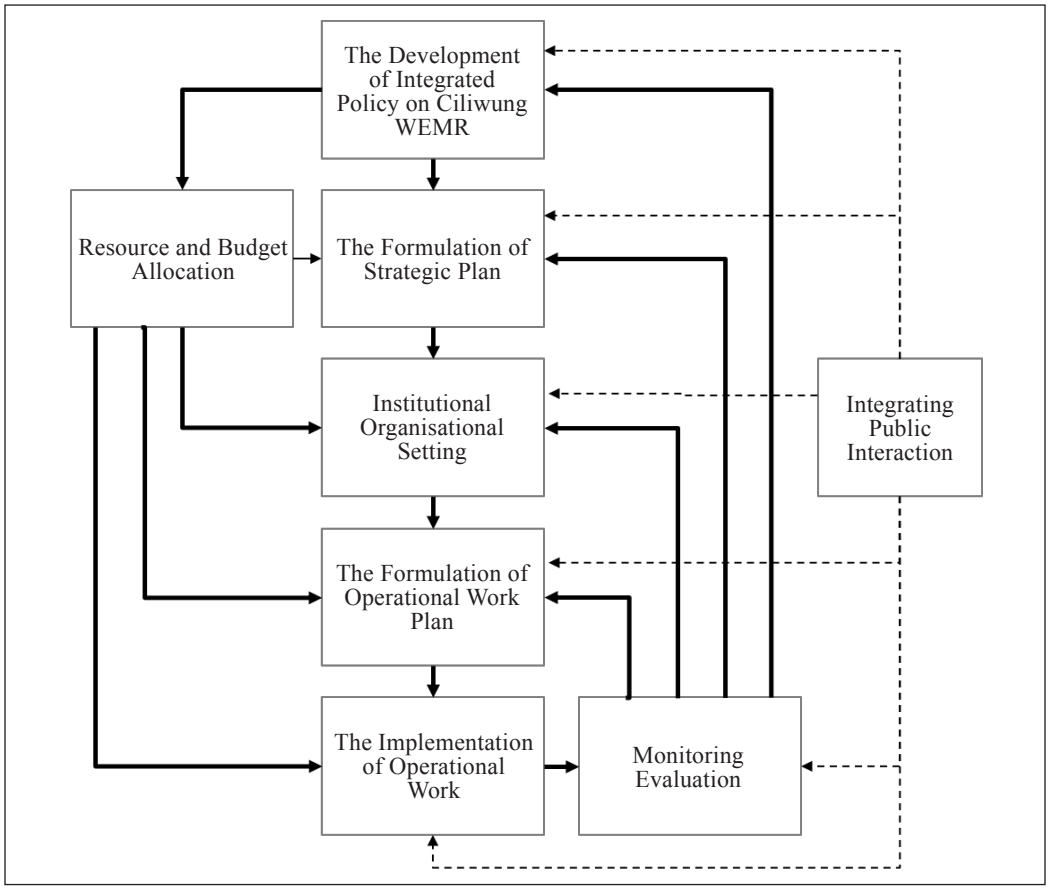

Figure 10. All of the steps in the Ciliwung WEMR

implementation through the whole MCG system. The success of MCG at each level will determine the success of the entire Ciliwung WEMR. From that model, the authors believe that the success of implementing a collaborative governance process in System/Subsystem Number 1 and 2 could determine the continuity of the whole collaborative governance process, because it relates to norms, values, and work relations in arrangements among actors and the availability of budgetary resources**.** Monitoring and evaluation in System/Subsystem Number 2 will give input (feedback loop) as a correction of strategic policy in System/Subsystem Number 1. The same dynamics and feedback mechanism are also present in System/Subsystem Number 3. The monitoring and evaluation results in this System/Subsystem give input to correct institutional arrangements in System/Subsystem Number 2 and give input to correct policies in System/Subsystem Number 1. The success of the processes in System/Subsystem Number 3 also strengthens the whole MCG process, because it gives accountability and legitimacy to System/Subsystem Number 1 and 2.

From the research analysis, the authors have reconstructed the theory of policy hierarchy from Bromley (1989) and added interlinkages which connect all policy hierarchies. Interlinkages among the various levels can be viewed from two perspectives: 1) input and output (business process) and 2) top-down and bottom-up viewpoints (hierarchy). In the business process, the output produced at one level becomes the input for the next level or vice versa. Meanwhile, top-down and bottom-up refer to process initiation as it occurs in the chain of the hierarchy.

Figure 11 illustrates the input-output perspective at the policy level where the policies that were produced reflect the common vision. The authors recognize three instruments to ensure the integrity of the interlinkages between the policy level and the organizational level: monitoring, budget, and mandates. Monitoring, budgeting, and mandates (policies) are three functions owned by the Legislative as parts of their daily tasks. Policies produced at the policy level, in the form of mandates and budget allocations, bind all processes and activities at the organizational level. Mandates and budgets produced at the policy level give authority and resources to implement the processes of MCG at the organizational level. Hereafter, to make sure that the organizational level processes conform to expectations from the policy level, then monitoring is required to control the processes.

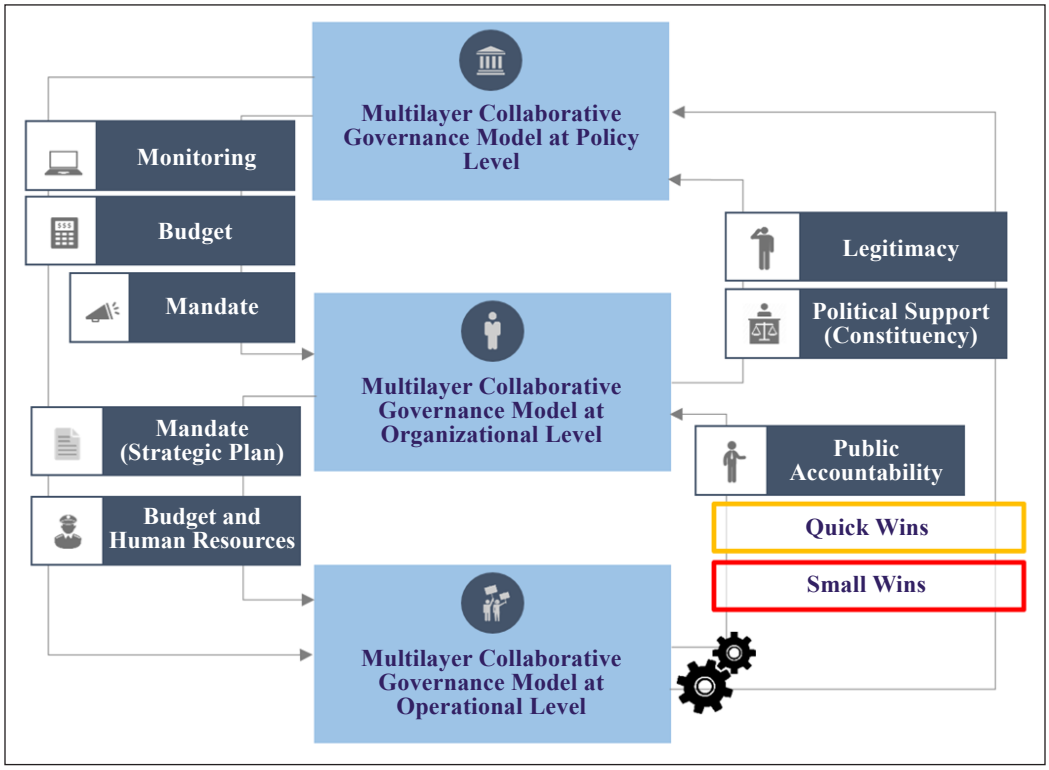

Figure 11. The whole model of MCG in Ciliwung WEMR

There are two viewpoints in hierarchy perspective: top-down and bottom-up. In these perspectives, the MCG processes occurring between the policy level and the organizational level come from the top down in the hierarchy. The flow of process and hierarchy, as seen in Figure 11, streams from the policy level to the organizational level. To strengthen the interlinkage between the organizational level and the operational level in terms of input-output, output in the form of strategic plans and institutional arrangements produced at the organizational level must be the reference and/or input for operational processes. To assure this, the interlinkage and control instruments to connect the organizational level and the operational level are: 1) mandates summarized in the strategic plan and 2) resource (budget and human resource) allocation and distribution that has been agreed upon to support the implementation of the Ciliwung WEMR at the operational level.

The MCG in Figure 11 is a systemic process in a continuous cycle. Therefore, the process flow is not only top-down, but also bottom-up. This backflow process (bottom-up) could strengthen interlinkages in all policy hierarchies. The outputs and outcomes produced at the operational level can increase public accountability at the organizational level. These outputs and/or outcomes could also increase public support (constituency) and legitimacy at the policy level. The same condition also occurs with the outputs and/or outcomes produced at the organizational level, and it could increase public support and legitimacy of actors at the policy level.

In Figure 11, the model needs energy to activate all potential actions in all Systems/Subsystems, in order to propel the system as a continuous cycle. This activation energy is only realized by quick wins and small wins at the operational level. Quick wins and small wins are short-term field successes. The success of quick wins and small wins can decisively increase public trust and political support toward current and/or future processes. In the real world, operational successes have massive effects on the public. Different implications occur at policy and organizational levels, where successes at the policy and organizational levels are not felt by the public broadly.

The success of quick wins and small wins at the operational level is needed to increase public and political support as it relates to resource allocation to perform MCG in all policy hierarchies. As an example, such success can be seen in the setup of the Kampung Pulo area, East Jakarta. It successfully enhanced public trust toward the Governnment. Despite facing resistance from some groups in the beginning, this resistance eventually receded because the community received positive impacts from this setup. Here is a statement from a resident of Kampung Pulo:

> "Compared with the previous years, [the] flood lasted for a month. Nowadays, flood[ing] vanishes just in a day because of the Ciliwung Setup"
>
> (Personal communication, January 2, 2016).

Besides this Government program, there are also community-based programs that secure quick wins and small wins. The activities of environmental conservation from MatPeci have established public trust because of their positive impact. The success of MatPeci's programs (e.g. garbage management and agricultural empowerment on the riverbank) has finally attracted some parties to join their activities, as reflected by MatPeci Leader's statement:

> "I never expected that my programs would receive support from other people. Previously, I had difficulties recruiting members, but now it becomes easier. Currently I have fifty members here"
>
> (Personal communication, April 4, 2014).

The quick wins and small wins are needed to make adjustments to the MCG model in respect to good enough governance. Good enough governance is the most appropriate approach for developing countries like Indonesia. There is a possibility that the MCG model that has been created is still idealistic, hence it may not be easily implemented. One element of good enough governance according to Grindle (2004, 2007) is pragmatism (what is feasible and what is not) (Kim, 2014). Pragmatism at an operational level, shown by quick wins and small wins, is an adjustment to the model. This is just a short-term success, but the reality is that it could be effectively implemented in the context of the Ciliwung watershed.

Based on the research results, the authors argue that the MCG needs political work intervention. Political support for the Ciliwung WEMR is relatively weak, so it has yet to become a priority agenda as discussed by two politicians from Commission VII of the DPR RI namely I. Firdaus and S. W. Yudha:

> "Other Members of DPR RI do not have strong concerns for that matter, unless there is pressure from the constituency. We need agenda setting. DPR should endorse river restoration as a national agenda"
>
> (Personal communication, July 25, 2016).

> "This issue has not become significant yet. Only a few people perceive it as important"
>
> (Personal communication, June 10, 2016).

Political work in the Ciliwung WEMR is important because: 1) the success of public policy is determined by political support, either internally and/or externally, to establish policy legitimacy, public resource support, and public accountability toward the human activities in the MCG; 2) the involvement of the intensive public-political-government actors strengthens the dynamics of collaborative political processes, in addition to the process of technical-managerial work (conceptual work, relational work, institutional work, and action-driven work); and 3) the changes and dynamics of power among these actors happen as consequences of multi-actor involvement in the process of governance.

Table 3
Work interventions of the MCG in the Ciliwung WEMR

Policy Hierarchy	**Work Interventions**				
	Conceptual Work	***Relational Work***	***Political Work***	***Institutional Work***	***Action-driven Work***
Policy Level	• Identifying and evaluating the policy problems • Developing the concept of integrated policy • Developing the concept of collective work among government and political actors • Mapping the actors interactively	• Consolidating the position in Ministry/Body internally on an integrated policy • Building communication and understanding toward a collective framework among government and political actors	• Developing agenda setting through public opinion strengthening and integrated policy advocating • Proposing a correction to collaborative governance process and integrated policy • Formulating and approving the integrated policy through collective work among actors	• Approving the collective framework in the formulation of strategic policy through collaboration • Selecting the main body/person in charge to oversee the whole task	• Monitoring and evaluating the process and the integrated policy
Organiza-tional Level	• Identifying and evaluating the problems of policy implementation • Preparing a concept of the strategic plan for policy implementation and a concept of institutional arrangement and leading sector • Mapping the actors interactively • Developing a concept of collective work in an integrated policy implementation collectively	• Developing communication to improve the understanding and ownership	• Proposing correction of the integrated policy	• Approving the collective framework in policy implementation	• Formulating and approving the strategic plan, institutional arrangement, and leading sector • Monitoring and evaluating the process, institutional arrangement, and leading sector

Table 3 *(continue)*

Policy Hierarchy	**Work Interventions**				
	Conceptual Work	***Relational Work***	***Political Work***	***Institutional Work***	***Action-driven Work***
Organizational Level					• Proposing a correction to the collaborative governance process, institutional arrangement, and leading sector
Operational Level	• Identifying the problem of the activity interactive operationalization • Developing a concept of multi-actor collective network interactively • Preparing a work plan for operationalization activities • Developing a concept of collective framework for operationalization activities collectively	• Establishing a multi-actor collective network on operationalization activities • Strengthening the communication among actors in a network to improve the understanding and ownership • Discussing the collective framework plan for operationalization activities • Proposing institutional arrangements	• Proposing correction of the integrated policy of Ciliwung WEMR	• Approving the collective framework for operationalization activities • Approving the collective framework plan for operationalization activities	• Implementing the collective framework for operationalization activities • Monitoring and evaluating the process and activities for operationalization • Proposing correction of collaborative governance process and operationalization activities

With political influence for MCG, the work interventions that should be conducted are not merely technical-managerial, but also supported by political work. Political work produces political decisions, especially budget allocations (political budget) and organizes agenda setting. Basically, political work is an integral part of relational work. Those two-work interventions are utilized to strenghten support for the actors. The authors separate political work from relational work because political work implies power relationships among certain actors. At the same time, in the relational work built by Senge et al. (2007) and Silalahi (2011), the characteristics of these relationships are equal, assuming that there is no power relationships based on their mandates or authority. Relational work then emphasizes dialog and inquiry. Therefore, the authors reconstructed the theory of work intervention in collaboration from Senge et al. (2007) and Silalahi (2011) and added political work intervention.

Referring to the model of bureaucratic politics from Peters (2001) and the data analysis, four political arenas are evidenced in the MCG in the Ciliwung WEMR (Table 4).

The success of political work interventions can be realized with the support of political leaders who can unite various political interests. The important role of political leadership in developing MCG can be seen through the mandate/authority and capacity of a political leader to mobilize public resources**.** Based on the data analysis, the public expresses a clear wish for involvement of political leaders at the presidential level because: 1) the President is able to resolve authority conflicts among the ministries/bodies, provincial, and regency/city governments and the problem of funding; 2) as a cross-province river, final authority lies with the Government; and 3) Ciliwung watershed is an ecological corridor which determines the landscape of Jakarta, the center of the administration.

Below the presidential level, the appropriate political leader to lead the collaboration is the Minister of Environment and Forestry. This Minister has the authority, both formal and informal, to lead the process of developing the Ciliwung WEMR. The mandate and status form a hybrid Ministry (as coordinator and operator) so that the Minister of Environment and Forestry can perform more effectively, because: 1) the Minister of Environment

Table 4.
The model of bureaucratic politics in building MCG

		Internal	External
Formality	**Formal**	**Consultation** of senior bureaucrats with Minister to strengthen internal relations within the Ministry/Body and to acquire the delegation of power	**Negotiation** with Ministry/Body and other instances to strengthen funding support and accountability (monitoring and evaluation)
	Informal	**Lobbying** to strengthen support from interest groups in Policy Communities	**Networking** and **Advocacy** to strengthen public support and legitimacy broadly

and Forestry can exercise its authority to coordinate various government agencies associated with watershed management; 2) the MoEF can arrange cross-cutting issues through some environmental instruments such as the Strategic Environmental Assessment, Environmental Impact Assessment, Environmental License and law enforcement; and 3) as a portfolio ministry, MoEF possesses a technical implementation unit which can operate directly in the field.

CONCLUSION

This research has developed a model of MCG to manage and restore the Ciliwung watershed ecosystem. The model consists of three policy hierarchies. At the policy level, there are eleven human activities. At the organizational level, there are ten human activities. And at the operational level, there are fourteen human activities. The MCG for the Ciliwung WEMR should be conducted wholly at the policy, organizational, and operational levels to reflect a systemic approach. To be effective, the model should be strengthened by interlinkages. Interlinkage is a connecting instrument that links the three policy hierarchies, so that the model could work continuously and effectively. Additionally, to propel all systems/subsystems as a sustainable cycle in a policy hierarchy, the model needs activation energy in the form of short-term successes (quick wins and small wins) at the operational level. The addition of an interlinkage instrument and activation energy enriches the theory of policy hierarchy (Bromley, 1989).

This research also reconstructed the theory of work intervention in collaboration from Senge et al. (2007) and Silalahi (2011), in which the authors added political work. Work intervention in the MCG for the Ciliwung WEMR needs not only technical-managerial works, but also political work, because of power relationships among actors. Furthermore**,** there are four political arenas in political work intervention: consultation (formal-internal), negotiation (formal-external), lobbying (informal-internal), and networking and advocation (informal-external). These arenas of political work intervention are developed based on the concept of bureaucratic politics (Peters, 2001). Based on the complexity of this project, the Ciliwung WEMR effort should be led by the President of the Republic of Indonesia. At the ministerial level, the effort could then be led by the Minister of Environment and Forestry. Further research is needed to test the model in the real world in order to solve problems arising from institutional complexity among those involved in the Ciliwung WEMR.

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Case Study

An Analysis of Functional Positions and Their Deployment to Achieve Organizational Goals: A Case Study in Indonesia's National Civil Service Agency (Badan Kepegawaian Negara)

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ABSTRACT

This study aims to analyse the appointment of functional position which consists of job analysis, employee planning, recruitment, and selection and to analyse the linkage between functional position and the organizational goals. This qualitative research analyses the implementation of job classifications based on function and its linkage with the purpose of the organization. It uses Indonesia's National Civil Service Agency as a case study. The results have shown that the primary data used for job analysis and planning cannot be validated. Recruitment and selection for vacant positions are generally consistent with best practices. However, the relationship between job classification and fulfillment of organizational goals appears uncertain. The effort to increase human resource capacity does not appear to be in a linear relationship with employee performance.

Keywords: Functional position, job analysis, job classification

INTRODUCTION

The principle applied to public as well as private-sector organizations is driven by purpose. The purpose and idea of the organizations encourage and direct the activities of the organization and its people (Daft, 2010). In public agencies, the driving purpose or idea is typically manifested in regulations, a constitution, or other public documents. The implementation of public organization's purpose takes place

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through the deployment of resources, such as employees, the bureaucracy, and financial support. Dessler (2013) stated that human resources management, as a process designed to train, obtain, evaluate, and compensate the employee, would seek to ensure that interpersonal relationships, workplace safety, justice, and other human factors supported the organization's effort in achieving its goals.

According to article no. 5 of the *Law on Civil State Administration 2014*, the government of Indonesia intends to foster public-sector human resource reform. This legislation divides the positions of public officials into three classification which is high-level, administrative, and functional. Especially at the functional level, the government has aimed to increase the professionalism of civil servants and to minimize excesses of bureaucratic structure, seeking to give functional officials with expertise an opportunity to advance their careers. In Indonesia's bureaucratic reforms, functional employees have been highlighted in an attempt to help government improve its performance. The Ministry of Administrative and Beureucratic Reform has regulated employees' career development opportunities. This regulation indicates that the government encourages civil servants who are already qualified for a functional position to register.

First, empirical data suggests that there has been growing demand from all institutions to the Ministry of Administrative and Beureucratic Reform to give civil servants functional positions. In 2014, there were 43,800 position requests from all institutions, representing an increase of 11.61% compared to 2013. This phenomenon differs from Indonesia's recent experience with another job classification where the number of proposals in 2014 was 11,007, a steep drop from the 19,539 proposals in 2013 (Fahrani & Novi, 2016). Second, due to the high requests, the percentage of functional positions among all government jobs has increased. According to National Civil Service Agency, as of 2017, there were 2,276,923 Indonesian personnel, or 52.26% of all government officials, held functional positions. Third, several institutions have encouraged civil servants to seek functional positions as a means of reducing the influence of the structural bureaucracy and increasing organizational efficiency and effectiveness. This phenomenon results in a bureaucracy that is rich in functional positions but limited in structural positions. The high number of officials in functional positions should be reflected in increasing productivity or improving performance.

The present research focuses on the job classifications in the National Civil Service Agency, an institution responsible for human resource management across all government institutions in Indonesia. This responsibility makes the agency as a role model for human resource management in the Indonesian government.

Public-sector leaders are responsible to society and expectations that government will be accountable, transparent, and equitable. Christensen et al. (2007) stated that public-sector agencies must deliver

value to the general populace, followed orderly procedures, observed democratic principles, and emphasized concern for the public welfare. According to Lubis and Huseini (2009), measurements of public-sector agency success should involve all aspects of the organization, both internal and external, and should compare the organization's achievement to established targets.

Having a greater number of public officials in functional positions should logically improve the organization's performance. From that perspective, this research analyses the implementation of job classifications of functional positions by the National Civil Service Agency's central office. It also examines the linkage between this implementation of job classifications and the National Civil Service Agency's efforts to achieve its organizational goals.

MATERIALS AND METHODS

This study uses a qualitative approach including collection of primary and secondary data, accompanied by analysis to identify the deeper meanings underlying the facts and phenomena under examination (Irawan, 2004). Primary data were obtained through the interviews of nine informants, all of whom were key staff members with policy and decision-making responsibilities related to functional positions. These included employees of the National Civil Service Agency main offices, as well as other stakeholders, such as the head of apparatus bureau, head of competency and functional position division, head of organization and governance division, head of employee development division, head of planning and placement subdivision, head of employee development subdivision, head of functional position development subdivision, head of governance subdivision, employee functional auditor, and employee functional analyst.

In addition, a desk review obtained secondary data about functional positions. Secondary data for this research consist of minutes of meeting, related regulations, and internal National Civil Service Agency data. All data, ranging from report, worksheet, and government regulation related to functional position, were collected and analyzed in 2016 and 2017.

There were several steps of this research. Firstly, the researcher analysed secondary data and reviewed related unit inside National Civil Service Agency to make informants list. Secondly, the researcher proposed interview session with all related staff in the unit. Thirdly, the researcher conducted interview with the informants and gathered secondary data from them. Fourthly, researcher made triangulation process to verify information from primary and secondary data.

RESULTS AND DISCUSSION

The Implementation of Job Classifications of Functional Positions in the National Civil Service Agency

Several steps are involved in defining and classifying a functional position in an agency. In the case of the National Civil Service Agency, the preliminary steps

are job analysis and job workload, which determine the nature of the particular functional position and the needs involved. These steps are followed by job recruitment and selection. Selection process is a way for an organization to recruite the best and the most potential candidate for vacant positions (Noe et al., 2011).These actions are significant because the assessment will determine the job classification based on organizational needs.

According to Decenzo and Robbins (2002), an in-depth interviews with several informants confirmed that job analysis is necessary to determine the appropriate performance standards and workloa. This step is also necessary as a basis for ensuring equal compensation, setting job standards, and placement of suitable staff in functional positions. The implementation of job analysis at the National Civil Service Agency involved delivering a questionnaire to relevant stakeholders within the agency. A group of employees in every functional position were asked to respond to the survey. The result revealed that the data verification process involved only the director and did not include other stakeholders who have competencies in job analysis.

According to article no. 12 of the *Law of the Republic of Indonesia 2011*, data verification is part of the overall process of triangulation of job analysis. The regulation suggests that data clarification should include focus group discussions with a job analyst, informants, the supervisor, and another related unit participating. In line with this provision, Dessler (2013) stated that the verification process should definitely involve a director. However, empirical evidence indicates that supervisors do not participate in the process; rather, the job analysis at the National Civil Service Agency includes only a representative of each unit.

In addition, in the workload assessment process, recently the National Civil Service Agency has to conduct re-assessments because of errors in the calculations of job workloads in each unit. Each unit is involved in this process because its members know best about the unit's needs and workload. However, errors in the workload calculations have occurred, as illustrated by several instances of proposed job placement in functional positions that were not in line with previous workload measurements. Prior workload analyses have found that even when the number of employees allocated to a unit is based on the current workload in the unit, there is a tendency to over-assign employee's relative to the actual workload, apparently because of inadequate knowledge of job requirements or inaccurate calculation.

As a result, at the National Civil Service Agency main office, job placement and classification related to functional positions are often not in line with the job analysis and job workload analysis. This condition is not in accordance with article no. 56 of *Law on Civil State Administration 2014* of which the first sentence states that each institution needs to analyze its human resources based on a job workload assessment. Furthermore, Dessler (2013) had noted that planning for

the number of employees needed should be based on an analysis of the workload of and the services provided by each institution. Clearly, planning for the number of employees needed at the National Civil Service Agency is not in accordance with this theoretical concept or with federal regulations.

Recruitment of employees to fill functional positions in National Civil Service Agency is through three sources of recruitment process including: public announcement, internal communication to current agency employees who may be interested in transferring to a new position, and word of mouth within the agency. These methods are consistent with those described by Mathis and Jackson (2008) and Dessler (2013). Public announcements are designed to give everyone a chance to apply and to attract a wider range of candidates.

Recruitment of candidates is followed by selection. The National Civil Service Agency evaluates the past performance and potential of applicants. All candidates are required to submit information on their past job history for administrative review. In addition, a written examination and aptitude test are administered to assess the candidate's potential (the agency refers to this as a substantive test). An innovation in the administration of the substantive test is the use of a computerized system, which decreases the risk of error or test-taking fraud. The selection process appears to be a good example of the procedures recommended by Mathis and Jackson (2008) and Decenzo and Robbins (2002).

Even though the selection process is already good, several threats to its effectiveness have been identified remain. Because of the large number of applicants for functional positions, candidates often experience a long delay in receiving decision letters in response to their application. This situation can become problematic because when existing employees seek training for a new position, the letter confirming their successful completion of the training is valid for only three months. This problem could increase the cost of training due to the high likelihood that the employee will end up requesting a second training class because the three-month validity period of the first training has expired.

The Linkage Between Functional Positions and Achievement of Organizational Goals

The purpose of job classification is to improve performance and to achieve organizational goals. Therefore, a high number of functional positions need to align with high performance of the institution. The National Civil Service Agency's goals are reflected in its 2015–2019 strategic planning document (National Civil Service Agency, 2015). These goals include achieving overall quality among civil servants; developing properly qualified public-sector leaders; delivering excellent service in the agency's employment bureau; and creating responsible internal management. Interviews with several informants in National Civil Service Agency revealed that functional positions in the main office

are needed to support the organization in achieving all these goals. Creating functional positions increases the possibility of higher level of performance because doing so deploys professionals in their area of expertise. Within the agency itself, there are 575 employees in functional positions, fulfilling 20 distinctly defined functions. These 20 functions have a good chance of supporting the agency's achievement of its goals and becoming a national role model.

The National Civil Service Agency has two function groups. The first function group is directly correlated with the organization's goals, and those that have an indirect relationship to the goals or serve as supporting factors. Examples of the first function groups are employee analyst, employee auditor, computer and information technology specialist, statistician, auditor, archivist, and public policy specialist. These function groups relate to the management of Indonesia's civil service. For example, employee analysts and employee auditors support the agency in ensuring excellent service and providing highly competent management of civil servants, especially with regard to managing responses to disciplinary offenses in government institutions. Meanwhile, computer specialists and statisticians enhance the agency's effective use of technology in its management of public officials and are essential for data management. The compatibility between these functions and organizational goals illustrates that functional positions in the National Civil Service Agency support the institution in achieving improved performance (Lubis & Husaeni, 2009). However, it is difficult to draw clear conclusions about the effectiveness of these function groups because there is not always a linear relationship between the number of functional positions and the organization's ability to be efficient and productive or to achieve its stated goals.

The organization as social structure was built by two or more people simultaneously. The organization defines duties and responsibilities to achieve organizational goals. All the duties and responsibilities are reflected in the employee position. Therefore, positions of the employee have the correlation to achieve organizational goals.

In order to align the employee position and organizational goals, the organization needs job description and job specification. All these informations were based on job analysis. The job analysis does not only contain the information about the employee position but also the foundation of the job recruitment and job placement.

However, interview result implies that job analysis based on job workload is far from perfect. This condition affects the organization's ability to address its actual needs and can suggest deficiencies in the analysis, creating a strong likelihood that many functional positions are not designed with sufficient precision and clarity to improve employee performance. Current evaluation based on achievement of credits cannot provide a complete or meaningful depiction of actual performance quality because it tends to be used as an

administrative requirement to raise the level of civil services. Therefore, it is urgently necessary for the organization's change efforts to be more production-oriented and cascade the goals into achievable and measurable indicators for all targets and at all levels of the organization.

The analysis of functional positions in the National Civil Service Agency reveals both supporting factors and obstacles. The supporting elements, in this case, include the availability of internal human resources with qualified expertise suitable for 20 identified functions in the agency. There is also a positive tendency toward mindset change encouraging employees to be more autonomous in their work. Meanwhile, obstacles hindering the process include the imperfect correlation between job analysis and workload and the limited ability of supervisors and civil servants to fulfill their assigned duties because of budget limitations.

Overall, the evidence indicates that the degree of linkage between the job classification of functional positions and the achievement of organizational goals is a gray area. Even though the institution has a high number of functional positions, the attainment of targets depends on the productivity of individual employee. Secondary data analysis of National Civil Service Agency has shown that even though the system is rich in functional employees, the level of productivity that is attained is another matter. This finding contradicts the theoretical assumption that a high quality human resources will increase organizational productivity. In such a situation, the role of leaders and general structuring of measurable, achievable expectations can leverage progress to make the institution more successful.

To sum up, the National Civil Service Agency still faces obstacles with regard to its ability to serve as a role model of effective public-sector employee management. Therefore, the Government of Indonesia as an institution made up of many components of sub-institutions will face challenging times in its efforts to improve effectiveness and productivity. On the other hand, the effort to implement human resource management reform is a promising start. However, the implementation of this effort has not been consistent across all sub-institutions.

CONCLUSION

This research concludes that the implementation of recruitment activities for functional positions in Indonesia's National Civil Service Agency is far from perfect. The study has found indications of fraud in the job and workload analyses. Even though there is a high number of functional positions in this Indonesian agency, there is no clear evidence that this prevalence of functional positions assists the agency in achieving its organizational goals. Moreover, the process needs an undergirding framework and requires the strong exercise of political will by a leader in each institution.

Related to this challenge, especially with regard to the recruitment and placement of candidates in functional positions, the National Civil Service Agency should increase the validity of its job and workload analyses. These tools provide the basis for measurement and human resource planning in the institution. Training for all employees related to job analysis is important in this process because all employees need to share responsibility for human resource management. There is also a need to cascade the organization goals into indicators and targets for each unit or even for each employee, based on their functions. This step will help all members of the organizational unit to become more productive and at least to be more successful in achieving suitable indicators based on their function.

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Case Study

Implementation of Job Analysis Regarding Functional Position in a Government Institution: A Case Study of the Ministry of Environment and Forestry

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ABSTRACT

This study discusses the implementation of a job analysis of a functional position in the Ministry of Environment and Forestry based on bezetting (formation) and job formation. A post-positivist approach and a qualitative method are used. The result indicates that job analysis of a functional position in the ministry still uses temporary data for job analysis. Stakeholders also have limited involvement in the process. In addition, the respondent for the job analysis is not the key person. This condition makes the job analysis effort's verification and validation steps inaccurate. The resulting impact is that job descriptions and specifications do not illustrate real organizational needs. Therefore, there is an urgent need to link bezetting and job description.

Keywords: Appropriate, functional position, implementation, job analysis

INTRODUCTION

Article no. 17 of *Law of the National Long-Term Development Plan 2005–2025* mandates that state apparatus development is done through bureaucratic reform to improve its professionalism and to realize good governance. Bureaucracy reform is essentially an effort to undertake a fundamental discussion regarding the system of governance, especially its institutional framework (organization), business process, and apparatus resources (human resources).

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There is often a connection between the efforts to build the state apparatus and various problems found among civil servants themselves. There are at least five problems: 1) unclear manpower plannings; 2) no clear design for the distribution of civil servant education; 3) unclear and inefficient organizational design, authority, and work; 4) failure to run the basics of professional human resource (HR) management; 5) weak enforcement of discipline, integrity, and good governance (Krisbiyanto, 2012). Of them, the third is closely related to the substantive issue of this study: opaque or inefficient organizational design, authority, and work will significantly affect productivity.

The emergence of article no. 5 of *Law of the Republic of Indonesia 2014* about State Civil Apparatus became the legal means to protect state civil apparatus reform. It mandated changes in the positioning structure, namely, top leadership positions, administrative positions, and functional positions. This regulation had a different character than article no. 43 of *Law of the Republic of Indonesia 1999* about Principles of Personnel, which mandated the structuring of posts consistent with the structural positions and functional positions, where functional positions included certain functional positions and other non-managerial ones.

Unlike structural positions, which fall expressly under the organizational structure or hierarchy, functional positions are technical and are not listed on the organization chart. However, from the standpoint of function, these posts are required to implement the primary tasks of the organization. Article no. 5 of *Law of the Republic of Indonesia 2014* emergence permitted an expanded role for functional positions. Responding to this obligation, the government generated public policy to prepare to form functional positions. Moreover, the national trend has been to transfer the employee to become a functional one. Current development of functional positions has already reached 142 types. The national program also opens wider opportunities for civil servants to reach 240 types of functional posts. Also, the existing data indicate that functional position formation has increased significantly since 2010—being restricted to civil servant candidates from new applicants rather than internal promotions.

Conceptually, the organization must determine what jobs/positions need to be done/established and how many and what types of workers are required for the job/position. In management terminology, this process is called organizing. Thus, the establishment of an organizational structure helps determine the skills, knowledge, and capabilities required by the job/position holder. To determine the work and the worker, human resource management performs an analysis of the position. All occupations must ultimately be tied to the organization's strategic mission and direction (DeCenzo & Robbins, 2010).Therefore, the addition of the number of functional positions (both types/nomenclature of the office and the employee) in the organizational structure

can be implemented properly through human resource planning—especially civil service planning. According to Fahrani (2016), human resource planning, in general, forms the core of human resources management, becoming a standard document used for recruiting along with composing resources within the organization. Government agencies perform civil service planning using three stages: 1) prepare job analyses and workload analyses especially for functional positions; 2) coordinate the results of job analyses and workload analyses done by each work unit in the related institution; and 3) determine the bases for recruitment and functional positions.

It is assumed that such changes will carry implications. First, the new policy will encourage both the government institutions at the national level and the local agencies to prepare various functional positions to meet the expected target of Ministry of Administrative and Bureaucratic Reform. Second, this policy will encourage government institutions, both at the national and local levels, to develop large-scale formation of various functional positions in public agencies, and then fill them either through the procurement of candidate civil servants or national in passing.

Third, the impetus for changing a functional position will cause problems if not accompanied by good socialization. Employees seem to believe that if they attain functional positions every two years they can be promoted, obtain functional benefits that are greater than structural ones, and at times can switch places and go back to the structural system. The increase in the functional level of functional positions every two years is different from both structural and four-year executive posts, but a person must meet a certain, predetermined credit score.

Fourth, functional positioning between the executive and structural positions also requires clarity of the division of labor between them. The organization must be able to perform the division of labor carefully according to the primary task and functional function, differentiating them with the duties and functions of the office of the implementer, so that the promotion of functional positions may grow with an increasing the credit score (without having to fight for work).

These implications for functional management are closely related to functional position planning, although there are still many obstacles in functional office planning in government agencies. In functional positions planning, there are stages or processes in the implementation that comes through job analysis, workload analysis, and job formation (Fahrani, 2016). The role of position analysis is an important aspect and priority in determining the composition of human resources in an organization, especially functional positions in government agencies. So, the implementation of job analysis on functional positions is a stage or the process of determining the planning of functional position management, both in terms of quantity and quality.

The Ministry of Environment and Forestry (MoEF) is currently predicted to require a significant functional position considering that the needs of the National Environmental Supervisor is estimated to reach 9,900 people, while the existing employees only number 800. With the bezetting, in which bezetting means the number of staff currently retained (employee inventory), then by combining it with forestry, it can be predicted that functional requirements with forest control are large and will increase.

This factual problem is closely related to the organization's primarily public mission. The organization must be transparent in unifying the interaction of its members through its tasks and functions with a structured pattern and unity of purpose. A structured pattern of each member of the organization having their respective duties and functions defined is commonly known by the division of labor and roles of the organization. According to Armstrong (2006), position is a set of related tasks performed by a person to meet a goal. It can be considered as a unit within a fixed organizational structure and does not change no matter what person is in the position. Positions in this sense are fixed entities, as are the parts of machines that can be designed like other parts of a machine.

Moreover, human resource management is a very important concept in the organization because it leverages organization productivity through an organization's machines, and humans. Armstrong (2006) stated that human resource management was a strategic and coherent approach to the management of an organization's most valued assets. The people working there who individually and collectively contribute to the achievement of its objectives. This statement underlines that human resource management is a strategic approach and must be coherent through organizational asset management. Employees work in the organization individually or in a group to achieve organization's goals.

That is why human resource management planning is so crucial in the organization. Mondy and Noe (2005) stated that human resource planning (HRP) was the process of systematically reviewing human resources requirements to ensure that the required numbers of employees, with the necessary skills, were available when needed. From this definition, HRP is a systematic process of assessing human resource needs to ensure that the organization requires the number of employees with the skills available.

According to Dessler (2013), job analysis is important because managers use it to support just about all their human resource management activities. Job analysis enables the manager to list what a jobs duties and demands are now. The most important product of job analysis is the job description. There is no standard format for writing a job description. However, most descriptions contain sections that cover: job identification, job summary, responsibilities and duties, authority of incumbent, standards of performance and working conditions. While the job specification takes the job description and answers the question "What human traits and experience are required to do this job effectively?".

In other literature, Armstrong (2006) also stated that role analysis was a fundamental human resource process. It provides the information needed to produce role profiles and for use in recruitment, learning and development, performance management and job evaluation. For reasons given below, the terms 'role analysis' and 'role profile' are rapidly replacing the terms 'job analysis' and 'job description'. However, role analysis uses basically the same techniques as job analysis and many features of role profiles are found in more traditional job descriptions. The importance of job analysis is also supported by statements from Mathis and Jackson (1999), namely a primary focus of human resource management is on the jobs and work performed by individuals in the organization. Because organizations are changing and jobs must fit so many different situations, managers and employees alike are finding that designing and analyzing jobs requires greater attention than in the past.

In this analysis, job analysis contributes to understanding how functional positions are connected to organization goals and human resource management. Dessler (2013) stated that job analysis was the procedure through which you determine the duties of the positions and the characteristics of the people hired for them. Job analysis produces information for writing a job description (a list of what the job entails) and job (or person) specification (i.e., what kind of people to hire for the job). This understanding means that job analysis (position analysis) is a procedure for determining the tasks of positions or those positions and characteristics of people that must be recruited to occupy them. Position analysis produces information by writing a job description and job title or description of the right person.

Job analysis according to Dessler (2013) above shows two important aspects, namely regarding job description and description of the right person. This definition was also explained by Mathis and Jackson (1999) that job analysis was a systematic way to gather and analyze information about the content and human requirement of jobs, and the context in which jobs were performed. Job analysis usually involves collecting information on the characteristics of a job that differentiate it from other jobs. Similarly, as stated by Beaumont (1994) that job analysis is to provide an up to date and accurate job description which will indicate the sort of qualifications and experience to be used. Furthermore, Stredwick (2005) stated that job analysis could take place in a number of situations, all of which were associated with organisational change. So that an organization must be able to implement job analysis to determine the work and who does the work of the organization well.

Besides that, analysis to understand workload also important in job analysis. Based on Dasgupta (2013), workload is the number of jobs assigned to a worker in a given period. We may not always have full control over the total workload, but we can recognize the effect and take some action. Each person has different abilities, and they vary with task complexity, environmental

factors, and personal behavior (e.g., self-awareness and self-confidence). Based on this background, this paper aims to analyze the implementation of job analysis for functional positions within the MoEF, and thus analyze the suitability between bezetting and the formation of functional positions within that ministry.

MATERIALS AND METHODS

This study uses a post-positivist approach. The study uses theory to make an initial hypothesis about the research questions. This study uses the theory of job analysis which consist of steps to conduct job analysis. The theory of job analysis underlines seven subvariable of the job analysys which are decide the guideline of the usage of information; create job analysis guidelines; review relevant background information; selecet representative positions; analyse the job by collecting data about job activities, working condition, human traits, and ability to reform; verify the job analysis information; and develop a job description and job specification (Dessler, 2013). Theory guides a study as an analytical tool, generating results that are close to the truth of the situation through the process of identifying and analyzing the implementation of position analysis on functional positions in the MoEF.

Researchers used qualitative methods to collect data through interview with the determination of respondents coming through a purposive sampling technique. There were fourteen informants who head of unit and human resources analyist. Data analysis for qualitative data using interactive analysis model was proposed by Miles and Huberman (1994), that is, through three activities conducted since the beginning the research and while it was being conducted. The three activities are data reduction, data presentation, and conclusion and verification. This study used triangulation, as the steps to prove information with respondents or between different sources of information by using a variety of data sources, researchers, and theory. The triangulation strategy was used to validate or test the validity of collected data. As Creswell (2009) stated, triangulating different lines of evidence by examining the evidence coming from those sources and using them to justify the theme(s) coherently. Triangulation also utilize literature review. This technique is used to better understand the results of data collection through interview methods and a literature review.

All of the research procedure and process had been presented in front of panel which are consist of the representative of the university, reviewer, and supervisor to determine the ethical standard of the research. Firtsly, all the processes in the research prevented against the fabrication of falsying of data. Secondly, the panels had reviewed the research methodology and granted that the methodology based on the ethical standard.

RESULTS AND DISCUSSION

The author conducted a study at the MoEF by means of in-depth interviews with respondents from several units and did a literature review of secondary data.

The Analysis of Job Analysis Implementation

To analyze the implementation of job analysis on the functional position at the MoEF, the author used references based on the theory presented by Dessler (2013) about the steps involved with carrying out job analysis. This theory is the basis for the author's undertaking of data collection, processing, and analysis to be presented in the form of research findings. To analyze the extent to which a job is needed or used by the organization, an analysis of the normative workload at government agencies must be implemented simultaneously. The role of the analysis of workload is a joint package of job analysis to measure the type/nomenclature and role of the employer, in particular, the functional position of an organization. The combination of 'scientific management' thinking, the practice of collective bargaining and use of job evaluation techniques has historically resulted in a system of work organization which involved a hierarchy of narrowly designed and highly specialized job tasks to each of which was attached 'the (pay) rate for the job' (Beaumont, 1994).

The role of job analysis is recognized as a reliable tool for the management of personnel, this is in line with the existing theory in which almost everything working for human resource management is directly related to the job analysis process, as also stated by DeCenzo and Robbins (2010). However, the fact still found that the preparation of job analysis was still temporary (transient), because it was meeting the needs of data from job analysis to the requirements of outside agencies, especially the Ministry of Administrative and Bureaucratic Reform and the National Civil Service Agency. In applying the research locus, this research used of job analysis in the management of personnel theory as a whole, even though the ministry only implement gradual process of job analysis.

For government agencies, the guidelines that can be used as the basis for conducting position analysis are Guidance on Position Analysis of the Ministry of Administrative and Bureaucratic Reform (Ministry of Administrative and Bureaucratic Reform, 2011) and Guidelines for Implementation of Position Analysis of the National Civil Service Agency (National Civil Service Agency, 2011). This position analysis guide is used as a guide for ministries/agencies and local governments to conduct job analyses. The application of these guidelines is felt applicable and relevant to the implementation in the field.

Implementation of the job analysis in an organization indeed involves various parties, especially the human resource, employees and leaders/superiors. This condition should be considered well so that the implementation of job analysis can be a joint effort that is realized with the involvement of the parties

in the implementation of position analysis to achieve optimal results. The involvement of the parties in the implementation of job analysis in the Ministry of Environment and Forestry gave positive evaluation, even though this implementation did not significantly contribute to optimal support job analysis. Because of the facts of the case, the preparation of job analysis was still charged only to the personnel while the direct supervisor and the employee as a whole still felt less involved.

Realizing the involvement of the parties (the personnel, employees, and superiors) in the preparation of an analysis of the office should start from the leadership of the work unit. Where the role of leadership is to determine the involvement of others because it has the power to be able to move the components that exist within their work units. The existence of a team of position analysts must be inherent with the personnel and the organization because of the task and function then the implementation of job analysis is the responsibility of the personnel and organization. And that should be remembered also that the result of job analysis data is an important even the primary tool in organizing personnel management accurately and correctly for each work unit.

Related to the method used to obtain the information needed in the analysis of the position, the implementation of position analysis in the MoEF used data collection combined in several ways, namely by filling in the format of job analysis (questionnaire) and interview (mentoring). Selection of this method is perceived as the best method and most relevant to the circumstances. By combining the two approaches, the acquisition of information is more complete and useful.

Relevant information is like an organizational structure, with Gantt/ process chart, and job description. The organizational structure shows the division of labor throughout the organization and how and where the work fits in with the whole organization's goals. The process chart provides a more detailed description of the workflow in its simplest form, the process diagram showing the input and output trends of the work being analyzed.

In fact, in the MoEF had not finished preparing a business process, because at the time the authors did research activities of business process preparation was still ongoing. It is an objective consideration for the organization that the preparation of the business process is carried out not only to meet the requirements of the bureaucratic reform assessment, but it is unclear that business processes have data that can be utilized more widely, especially in the management of personnel and institutions, such as the establishment and placement of positions. In this case, the concern is for data that are specifically applicable to functional positions.

Aspects analyzed in the analysis were based on the implementation of tasks/jobs by all employees in the work unit. So, it was necessary to thoroughly collect information as accurately as possible to determine what all employees do there to attain ideal job-analysis data.

Determination of respondents from employees was considered the representative views of the coordinator of functional positions in each work unit. It was assumed that the coordinator is more aware and active in coordinating the implementation of tasks/jobs by other functional supervisors. Although factual is not absolute like that because the knowledge of this coordinator is limited and cannot possibly cover all the information required for the analysis.

A clear fundamental weakness is the level of understanding of key respondents who do not know for sure the overall work performed by all employees in the work unit, especially regarding the volume of results from their activities. Another has to do with the duration of time taken to collect data from respondents.

Analyzing actual or real work is done by collecting data on activities inherent in the job title, working conditions and employees, and the ability required to do the job. In short, analyzing work involving participants in depth, briefly describing the job analysis process to the participants, participants understanding the role in the job analysis process, spending about fifteen minutes interviewing the employees to get agreement on the basic summary of the work, identifying a broad area of responsibility work, potential clients, and identifying tasks in each area interactively with employees (Dessler, 2013). Analyzing and understanding the work done in the organization must be based on facts and data, not just personal perceptions of managers, supervisors, and employees (Mathis & Jackson, 1999).

Study results show that the preparation of job analysis had involved the participants in depth and even the participants was a key aspect in the development of their position analysis because it was considered as the person who knew best what kind of work they did. However, the method was carried out by entrusting the preparation of position analysis entirely on the stakeholders rather than merely serving as respondents for data collection. This method is difficult to ascertain the validity of the data generated because it tends to be subjective, stemming from the employee himself, so that the result of the job analysis will tend to be biased because of a conflict of interest. Conceptually as presented by Stone (2011) that the information obtained positions then analyzed and documented as work that existed and not a job that should exist. So, the existence of a job serves as a measure of the preparation for an analysis of positions by the needs of the organization rather than one based on the individual needs of employees.

To achieve objectivity, results of job analysis preparation may be pursued through the process of arranging results of an agreement between job analysis team with the respondent (employee). To provide an understanding of the process of position analysis to participants or employees performed in the form of socialization and mentoring. Although the tendency is that this understanding will cease to the participants or representative employees only and it is difficult to disseminate the understanding to employees as a whole. It

is important to note that analyzing the actual work is an aspect that determines the success of the preparation of the job analysis. Because a job analysis is an organizational analysis, where according to this definition, the main aspect analyzed in job analysis is the implementation of work that describes the functions that exist in each work unit. There is an expectation that the job analysis produces the following information about overall purpose job, organization, and content (Armstrong, 2010).

The verification and validation process is performed by employees who carry out the work and with supervisors or direct supervisors. This process will help ensure that the information obtained from the respondent is complete and correct, in addition to getting their acceptance so that objectivity of the job analysis result is acceptable. This process is also a form of refinement of the results of job analysis data so that the parties involved can verify the completeness and correctness of the data. However, the process had not been implemented at the time of preparation of the position analysis at the MoEF.

Although it was not intended as a verification process of the parties involved in the preparation of job analysis, verifications were performed by submitting job analysis results from one work unit to another to provide an overview or preliminary information that could be added, reduced or perfected. The process of verification and determination of these results is very necessary so that the results of this position analysis data into an ideal guideline to be applied with quality awake. Conceptually it has been stated that the verification and validation process is a step to ensure that the job analysis information collected factually is valid and comprehensive. So according to Dessler (2013), this step will improve the achievement of the results of analysis of positions by stakeholders. This step will facilitate in obtaining the agreement to accommodate the conformity of factual information to the needs of the organization.

This process is the final step in the process of performing an analysis of the position. Job descriptions describe job activities and responsibilities, as well as important features, such as working conditions. Job specifications summarize the personal qualities, traits, skills, and backgrounds needed to complete the job. The preparation of position analysis at the MoEF in format follows the format of Peraturan Kepala Badan Kepegawaian Negara BKN No. 12/2011 (National Civil Service Agency, 2011). This is because the existing format is already applicative and relevant to the process of position analysis conducted. Based on the format of job analysis in the Perka BKN can be seen that the existing format by the existing theory, as Dessler (2013) to say that the analysis of positions generates job descriptions and job specifications. However, the process of preparing the job descriptions and specifications still encountered difficulties, the accuracy of the data collected to be compiled in the format of job analysis is still in question.

In general, the greatest difficulty in the preparation of job analysis and workload on functional positions is about the volume of activity output. Because this process usually requires the agreement of the related parties, both functional stakeholders and the leaders / management of the work unit, but it must also be supported with valid documents or reports. There is an interesting statement to follow up on the terms of position. The preparation of job analysis conducted for the aspect of this situation is still very minimal because the inclination that entered the information is minimal formal education only.

Suitability of Bezetting and Formation of Functional Positions

The suitability of functional positions analyzed consists of the functional type/ nomenclature of the functional department and the number of functioning functional departments. Functional type/nomenclature is the formation of functional position based on the result of job analysis consisting of description and functional specification, while the functional positioning officer should be the result of the calculation of workload that must be performed by the functional position of the actors.

The number of types/nomenclature of functional positions in the Ministry of Environment and Forestry consists of thirty-three types/functional position nomenclature, as presented in the introduction. From the number of functional positions, the researcher analyzed the suitability between the type/nomenclature of existing functional positions with the formation. The data obtained from some of the types/nomenclatures of this functional position must follow the needs of the organization. The enhanced type of positions consists of functional positions of Forest Ecosystem Controller and Environmental Supervisor, while functional positions are removed/not used is the position of the position who own the job to mobilize community involvement.

The suitability of the number of functional departments will be illustrated by two aspects or facets, the first of the suitability between the functional positions and the second of the suitability between the number of existing department actors and the formation of the results of the calculation through departmental analysis and workload. Both of these aspects are very important to be analyzed because they are closely related to the management of personnel with job analysis.

Conformity between functional level posts to see how functional positions across levels of both skilled and unskilled levels. Because of this aspect involves the management of functional positions that are closely related to job analysis and workload, especially in terms of bezetting and formation based on the needs of the organization. Because as we know, this functional position has a promotion and ladder rhythm that can be faster than the executive department and measured on a rill basis by credit rating. This credit figure is governed by an organization's workload charged to a functional position

of a functional unit in a work unit. Then in promotion and level this one must be supported with the availability of ideal formation.

The per-ladle distribution can be seen in Table 1, where the distribution of functional officials shows the illustration of a disproportionate pyramid, even as if describing a fragile and delicate pyramid "wind." The existence of functional distribution is a fact that the ideal formation of functional positions should be set up to date as per the needs of the organization, based on job analysis and workload. Because it should not be a phenomenon of "snowballs" as a growing problem in the future. In addition, the absence of an ideal formation in the organization will make functional position staff difficult to accumulate credit figures so that it will hamper their career and even lead to retrenchment from functional positions.

Currently, the condition of existing functional officials has a total of 6,587 (37.05%) out of a total of 17,780 employees in the MoEF. From the existing data, the number of existing functional officers is still lacking and will continue to be added to, either through recruitment of new employees or through internal promotion (transfer from the position of executor and structural into functional positions). Based on the data contained in the e-formation, the recapitulation of existing functional office holders with the data in the MoEF is summarized as in Table 2.

Table 1
Submission of national functional position formation 2010–2014

Year	Formation Submission	
	Functional Position	**Executor Position**
2010	9.092	5.597
2011	Moratorium	
2012	7.330	7.235
2013	39.244	19.539
2014	43.800	11.007

Source: Fahrani (2016)

Table 2
Recapitulation of functional requirement data from MoEF

No.	Level of Functional Position	Real Number of Employees	Needed Employees	Gap	(%) gap
1.	Expert	3.029	7.260	4.231	139,68
2.	Skilled	4.068	11.752	7.684	188,89
Amount		7.097	19.012	11.915	167,89

Source: Ministry of Administrative and Bureaucratic Reform (2017)

From the data recapitulation in Table 1, it can be seen that the difference between bezetting and formation of functional position holders is considerable. In total then the existing difference of 167.89%, whereas when the level of functional position then the difference in skill level of 139.68% and skill level of 188.89%. The data shows the number of officers in functional positions more than doubled from the existing functional positions (bezetting).

Based on statements submitted by respondents, the data contained in the e-formation is indeed the data that has been used by the parties both the MoEF, Ministry of Administrative and Bureaucratic Reform, National Civil Service Agency and other agencies. But when it is associated with the level of validity and data, it cannot be ascertained because the process or method used is not accurate and uses a variety of estimation methods only so that the validity of the data is still questionable. The calculation of formation based on the prediction of existing employees is still very large bias so it cannot be concluded that the data on the e-formation shows the ideal needs data of functional officials in the MoEF. Looking at the factual conditions that exist, the difference between bezetting and formation of functional stakeholders in the MoEF as data on e-formation that reached a level more than double its initial quantity must not be considered as valid. As stated by the respondents that the data inputted in the e-formation has not been through the appropriate calculation steps and still tends to contain predictions or estimates based on existing conditions merely as a starting point.

Based on the discussion, MoEF needs to review the job analysis since it has high correlation to the performance of the human resources. Based on Siddique (2004), survey results indicated that a practice of proactive job analysis was strongly related to organizational performance. It is in line with Dessler (2013) who underlined job analysis as the systematic and comprehensive approach to the human resource management.

CONCLUSION

Position analysis on functional positions in the MoEF has not been implemented properly, it can be seen from several aspects, namely the use of job analysis result data is still temporary, involvement of the parties (e.g., job analysis team/personnel department, direct and participant/employee) in conducting the job analysis is still lacking, the positioning of respondent (officer and position) representing in the implementation of job analysis is not accurate, the actual job analysis is not accurate yet, verification and validation of job analysis result have not done exactly, and the preparation of job description and job specification is not accurate yet. Compliance based on bezetting and formation on functional positions in the Ministry of Environment and Forestry is still lacking, as evidenced by the refinement of activity items and the elimination of the use of functional types, there are also

a large number of shortcomings related to the positions for all functional positions in the MoEF.

This study suggests that the use of position analysis data for comprehensive personnel management must be enhanced through consistent regulation and implementation, such that the implementation of position analysis on functional positions becomes a necessity; there should be increased involvement of the parties (employment, leadership/direct supervisors, and employees) in the analysis of positions, i.e., by forming a team of reliable and focused position analysts in preparing position analysis and increasing the involvement of direct supervisors and all employees to contribute in the preparation of position analysis. It should be determined by the appropriate respondents to be the main source of information, through the positioning of individual positions and employees who may represent a work unit, having good capacity in preparing the job analysis, provided with a summary and documentation of work data represented in detail with relevant supporting documents can be used as material for respondents in the preparation of analysis of positions together with a team of position analysts. A verification and validation process should be performed on the official position analysis data by involving the Ministry of Administrative and Bureaucratic Reform and National Civil Service Agency and other competent parties, so that job analysis results may be verified and validated properly so that they may be used as guidelines in the management of qualified personnel. To improve suitability based on bezetting and formation on functional positions, the result of job analysis should be the basic guideline, either in determining the type/nomenclature of the position, determining the formation or filling functional positions through the determination of a functional position map.

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(Manuscript Preparation & Submission Guide)

Revised: August 2018

Please read the Pertanika guidelines and follow these instructions carefully. Manuscripts not adhering to the instructions will be returned for revision without review. The Chief Executive Editor reserves the right to return manuscripts that are not prepared in accordance with these guidelines.

MANUSCRIPT PREPARATION

Manuscript Types

Pertanika accepts submission of mainly **four** types of manuscripts for peer-review.

1. **Regular article**

Regular articles are full-length original empirical investigations, consisting of introduction, materials and methods, results and discussion, conclusions. Original work must provide references and an explanation on research findings that contain new and significant findings.

Size: Generally, these are expected to be between 8 and 12 journal pages or not exceeding 5000 words (excluding the abstract, references, tables and/or figures), a maximum of 80 references, and an abstract of 100–250 words.

2. **Review article**

These report critical evaluation of materials about current research that has already been published by organizing, integrating, and evaluating previously published materials. It summarizes the status of knowledge and outline future directions of research within the journal scope. Review articles should aim to provide systemic overviews, evaluations and interpretations of research in a given field. Re-analyses as meta-analysis and systemic reviews are encouraged. The manuscript title must start with "Review Article:".

Size: These articles do not have an expected page limit or maximum number of references, should include appropriate figures and/or tables, and an abstract of 100–200 words. Ideally, a review article should be of 7 to 8 printed pages.

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They are timely, peer-reviewed and brief. These are suitable for the publication of significant technical advances and may be used to:

(a) report new developments, significant advances and novel aspects of experimental and theoretical methods and techniques which are relevant for scientific investigations within the journal scope;

(b) report/discuss on significant matters of policy and perspective related to the science of the journal, including 'personal' commentary;

(c) disseminate information and data on topical events of significant scientific and/or social interest within the scope of the journal.

The manuscript title must start with "*Brief Communication*:".

Size: These are usually between 2 and 4 journal pages and have a maximum of three figures and/or tables, from 8 to 20 references, and an abstract length not exceeding 100 words. Information must be in short but complete form and it is not intended to publish preliminary results or to be a reduced version of Regular or Rapid Papers.

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Pertanika **emphasizes** on the linguistic accuracy of every manuscript published. Articles must be in **English** and they must be competently written and argued in clear and concise grammatical English. Contributors are strongly advised to have the manuscript checked by a colleague with ample experience in writing English manuscripts or a competent English language editor.

Author(s) **must provide a certificate** confirming that their manuscripts have been adequately edited. A proof from a recognised editing service should be submitted together with the cover letter at the time of submitting a manuscript to Pertanika**. All editing costs must be borne by the author(s)**. This step, taken by authors before submission, will greatly facilitate reviewing, and thus publication if the content is acceptable.

Linguistically hopeless manuscripts will be rejected straightaway (e.g., when the language is so poor that one cannot be sure of what the authors really mean). This process, taken by authors before submission, will greatly facilitate reviewing, and thus publication if the content is acceptable.

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The paper should be submitted in one column format with at least 4cm margins and 1.5 line spacing throughout. Authors are advised to use Times New Roman 12-point font and *MS Word* format.

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Manuscripts in general should be organised in the following order:

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This page should **only** contain the running title of your paper. The running title is an abbreviated title used as the running head on every page of the manuscript. The running title should not exceed 60 characters, counting letters and spaces.

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e.g. Salleh, A. B.[1], Tan, S. G.[2]* and Sapuan, S. M.[3]

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Abu Bakar Salleh[1] and Jayakaran Mukundan[2]
[1]Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia
[2]Department of Language and Humanities Education, Universiti Putra Malaysia, 43400 Serdang, Selangor Malaysia

A **list** of number of **black and white / colour figures and tables** should also be indicated on this page**.** Figures submitted in color will be printed (upon request) in colour. See "*5. Figures & Photographs"* for details.

Page 3: *Abstract*

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This page should begin with the **Introduction** of your article and followed by the rest of your paper.

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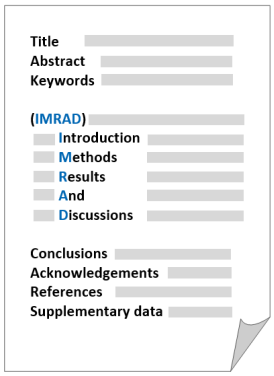

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The Introduction explains the scope and objective of the study in the light of current knowledge on the subject; the Materials and Methods describes how the study was conducted; the Results section reports what was found in the study; and the Discussion section explains meaning and significance of the results and provides suggestions for future directions of research. The manuscript must be prepared according to the Journal's instructions to authors.

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5. *Figures & Photographs*

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Failure to comply with these specifications will require new figures and delay in publication.
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References begin on their own page and are listed in alphabetical order by the first author's last name. Only references cited within the text should be included. All references should be in 12-point font and double-spaced.

NOTE: When formatting your references, please follow the **APA reference style** (6th Edition). Ensure that the references are strictly in the journal's prescribed style, failing which your article will **not be accepted for peer-review**. You may refer to the *Publication Manual of the American Psychological Association* for further details (http://www.apastyle.org/).

7. *General Guidelines*

Abbreviations: Define alphabetically, other than abbreviations that can be used without definition. Words or phrases that are abbreviated in the introduction and following text should be written out in full the first time that they appear in the text, with each abbreviated form in parenthesis. Include the common name or scientific name, or both, of animal and plant materials.

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   The cover letter of the paper should contain (i) the title; (ii) the full names of the authors; (iii) the addresses of the institutions at which the work was carried out together with (iv) the full postal and email address, plus telephone numbers and emails of all the authors. The current address of any author, if different from that where the work was carried out, should be supplied in a footnote.

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