THE INFLUENCE OF INSTITUTION PARTNERSHIP AND INNOVATION MANAGEMENT ON THE SMART CITY REPUTATION

Prasabri Pesti, Universitas Padjadjaran
Sucherly, Universitas Padjadjaran
Nury Effendi, Universitas Padjadjaran
Martha Fani Cahyandito, Universitas Padjadjaran

ABSTRACT

The government's efforts to develop the concept of smart cities are aimed at overcoming problems in urban areas, which still face a number of obstacles. As a result, public perceptions of the reputation of smart cities are low. The low reputation of smart cities is related to the lack of entrepreneurship education and may also be related to the problem of partnership with relevant stakeholders. Based on this background, this study aims at examining the effect of institution partnership and innovation management to the Smart City reputation in Bandung Indonesia. The research was conducted in Bandung city involving 200 respondents of Bandung citizens chosen randomly based on demography. The results showed that institution partnership and innovation management had influence on the Smart City reputation in Bandung. Innovation management had a greater influence than of institution partnership in improving the Smart City reputation.

Keywords: Institution Partnership, Entrepreneurship Education, Innovation Management, Smart City Reputation.

INTRODUCTION

Research Background

The increase of urban population results in the increase of demands to the local government for providing better public services. A framework is needed to be able to accommodate the needs of existing ecosystems in urban areas. The existing framework should serve as a guide for a city to be able to provide services that benefit urban stakeholders, such as the administration, the citizens, and the businesses, without disregarding the interaction between different stakeholders (Ergazakis et al., 2011). The framework is called the Smart City. Smart City is a concept heavily relying on the state, government, natural resources, the level of understanding of IT, and the capacity of the city (Weisi & Ping, 2014).

In order to follow the Nawa Cita (derived from Sanskrit language means nine hopes) program promoted by President Joko Widodo, many local governments, including Surabaya, Jakarta, and Bandung, are already showing concrete steps to become a Smart City.

Along with the government's efforts in developing the concept of Smart City to address the problems that exist in urban areas, there are a number of obstacles. One of which is that there is a low public perception on the reputation of Smart City. To establish a strong and profitable reputation, several basic elements should be brought to attention, namely credibility, reliability,

trustworthiness, and responsibility (Fombrun, 1997). However, there are observable problems in terms of the Smart City reputation, including the inability of local governments to deliver fast and credible services and the low level of public trust. Public trust is still low against the local government because the people discovered and experienced that the services were convoluted and the bureaucracy was ineffective in terms of time and cost. Some employees in local government offices are still found to be not proficient in performing their duties.

The people often find local government employees being outside the office during office hours. Therefore, local government officials have a low image in the public eye. The people also often find that the employees work casually and they use time inefficiently. In general, it can be said that the public trust on the government is not high because of the inability to establish good corporate governance. The people perceive that some local governments do not have the skills/experience. The local governments' reliability has not been viewed favourably by the public because they would view the convoluted bureaucracy as not leading to superior performance. Government employees are perceived as not having a high responsibility to the community yet because there are still shortcomings in the process of providing service to the community.

The low reputation of the Smart City is presumably related to issues in institution partnership with relevant stakeholders. Cravens (2013) argues that a good partnership is the establishment of partnerships both vertically and horizontally involving the various stakeholders. In the field, there are indications of an ineffective institution partnership between local governments and the relevant parties, such as ineffective interdepartmental synergy in organizations through cross-functional strategy. The local government is also ineffective in interdepartmental cooperation in disseminating the work program. Meanwhile, Kim et al. (2015) study showed that consumer perceptions of corporate social responsibility influenced consumer attitudes to develop brand trust to a company.

Another reason of the low reputation of Smart City reputation is presumably the problems in the development of innovation management. According to Researchers, there are four dimensions (4P) of innovation management including Product Innovation that changes the products or services offered by the organization; Process Innovation that changes the way of creating and delivering products services; Position Innovation that changes the context of the introduction of products/services; and Paradigm Innovation that changes mental models.

Based on observation, local authorities of the Smart City still have a weakness in identifying the benefits that they should provide to the public as the public perceives it. They have not been fully able to develop new and innovative programs or services. In addition, they also still seem to have problems in creating a quality assurance program. Meanwhile Diaz-Fernandez et al. (2015) study showed a strong correlation between innovation and positive and performance.

The aforementioned conditions describe the low reputation of Smart City. A review on previous research showed that there are several aspects that influence or are related to reputation namely partnership and innovation management. Based on observation, an overview was obtained on problems in the implementation of partnership and innovation management in Bandung City concerning the realization of Smart City. Based on the background, there is a need of a research on the extent of the influence of institution partnership and innovation management on Bandung's reputation of Smart City.

Research Purpose

Based on the aforementioned statement, this research aims at examining the effect of institution partnership and innovation management on the Smart City reputation in Bandung.
To achieve the purpose, this article has been organized in the following structure: 1) Introduction, 2) Literature Review, 3) Research Methodology, 4) Result and Discussion, and 5) Conclusion and Recommendation.

LITERATURE REVIEW

Institution Partnership

Cravens (2013) explains that partnership is an effort to cooperate with stakeholders. Partnership includes the vertical relationship that consists of relationships with suppliers and customers and horizontal relationship consisting of lateral and internal partnerships.

Wu et al. (2011) suggest that partnership is a relationship between the company conducted with sophisticated business model in which companies can share information and production processes with other organizations in a mutually beneficial business structure.

Priya and Jesintha (2011) studied on Public-Private Partnership (PPP) that described the partnership in services conducted by the government and several private businesses. According to Yu & Shiu (2014), partnership referred to the strategic alliance made between independent companies to share a common goal, in a relationship of interdependence to achieve objectives that cannot be achieved by only one company.

Researcher found that innovative organization and innovation are both driven by the users' needs and the desire to improve competitiveness. Exton & Totterdil (2009) recommended a systematic approach focusing on employee involvement, partnership, and the development of social capital. Khorakian & Salehi (2015) developed a model that that include five main enablers (leadership, innovation strategy, people, partnerships and resources, and process innovation) and a set of innovation results.

Based on the comparison of concepts, and the characteristics of the analysis unit, namely the concept of Smart City in Bandung, thus, the most suitable concept to be used in this research is the concept delivered by Cravens (2013). It is most suitable since it is holistic in terms of involving all components of the partnership either vertical or horizontal. Therefore, Institution Partnership was measured by several dimensions namely internal, society, supplier, and lateral dimensions.

Innovation Management

Researchers proposed four dimensions (4P) of innovation management including Product Innovation that changes the products or services offered by the organization, Process Innovation that changes the way of creating and delivering products services, Position Innovation that changes the context of the introduction of products/services, and Paradigm Innovation that changes the mental models.

Scholten & Scholten (2012) argue that innovation management referred to the planning, implementation, regulating, and control of systematic organizational innovation activities for the purpose of realizing innovative ideas efficiently and effectively. Meanwhile, according to Researchers, innovation management is a process of grabbing ideas from the employees and then

evaluating them to determine which ideas have the greatest potential to add value to the organization.

Based on the comparison of the concepts and the characteristics of the research unit, namely Smart City in Bandung that needs suitable processes and strategies to make innovations in providing Smart City services to related parties, thus management innovation in this research was measured by two dimensions namely innovation process and innovation strategy.

Smart City Reputation

According to Argenti & Druckenmiller (2004), the company's reputation is a collective representation of the corporate image of some constituents, which is built over time and is based on a corporate identity program, the performance, and how the constituents feel about the behavior that built the company.

Fombrun (1997) suggests that a company's reputation represents the affective or emotional reaction of the customers on the reliability or dependability of the company, public views on social responsibility of the company, the level of credibility in the eyes of investors, and the employees' trust on the company.

According to researchers, a strong reputation introduces positive consequences on the business management. A favourable reputation of the organization is a strategic resource that provides companies a significant competitive advantage. Hall & Lee (2014) also suggest that reputation is the assessment of the stakeholders (customers, suppliers, community, etc.) towards a company.

El-Garaihy et al. (2014) explain that reputation is an aggregate assessment of the company based on an evaluation of the effects of the financial, social, and environmental aspects of a company at a certain time.

Based on the comparison of the concept of reputation and the characteristics of the research unit, there is a problem on the weakness in identifying the benefits that should be given to the public. Additionally, the government officials have not been fully able to improve the development of new and innovative programs or services. Thus, the reputation of Smart City in this research was measured by the Fombrun's (1997) dimension: credibility, reliability, responsiveness, trust.

Hypothesis Development

Oloke et al. (2013) found the overall performance assessment of a company with a partnership is better than a company with a sole ownership. Simcic Brønn (2007) showed a significant correlation between the treatment of companies on the client's customers and the impact on the reputation of the client. Moreover, Researchers found that the company's reputation is associated with partnership.

Ou & Hsu (2013) showed the relationship between a company's reputation and innovative performance. Courtright & Smudde (2009) found that a common theme, style choices, and patterns of discourse which can typically be used for framing an expression of corporate identity, generate a favourable image in the minds of stakeholders, and build and maintain the company's reputation as an innovator. Innovation delivers on reputation. Further, Researchers showed that the role of reputation is in line with innovation.

Based on the literature study, the hypothesis proposed is that *"institution partnership and innovation management have an effect on the Smart City reputation in Bandung"*.

RESEARCH METHODOLOGY

This is a verification research that aims at testing the truth or facts or principles of an existing knowledge. Observations were conducted in a cross sectional or one shot time horizon, which means that any information or data obtained are the result of research conducted at one particular time, namely in 2017. The unit of analysis in this study is Smart City in Bandung City. The unit of observation is the population of Bandung and as many as 200 respondents were taken randomly based on demographics strata as the sample to obtain primary data. Hypothesis testing was done by using the Structural Equation Modelling (SEM).

SEM was chosen because of its ability to measure the constructs indirectly through several indicators, which can be used to analyze indicators, latent variables, along with deviations in the measurement. Therefore, it can analyze the relationship between variables indicator with latent variables which is called measurement equation, then the relationship between latent variables with each other which is called structural equation which simultaneously involves measurement error.

RESULT AND DISCUSSION

Fit Model Testing

This section discusses the results of hypothesis testing using the SEM. First, the hypothesis was analyzed for model suitability. Goodness of fit of the model aims at testing whether the resulting model describes the actual conditions.

The calculations by using LISREL obtained the complete results as follows.

No.	Measurement of Degree of Fit	Value	Acceptable Measurement of Degree of Fit	Description
Table 1 GOODNESS OF FIT				

Table 1
GOODNESS OF FIT

No.	Measurement of Degree of Fit	Value	Acceptable Measurement of Degree of Fit	Description
1	Chi Square	171.46	P -value>0.05	Close Fit
	Normed Chi Square (x2/df)	P -value=0.20339		
2	Goodness of Fit Index (GFI)	0.89	>0.8	Close fit
3	Adjusted Goodness of Fit Index (AGFI)	0.90	AGFI>0.8	Close fit
4	Root Mean Square Error of Approximation (RMSEA)	0.022	RMSEA $\leq$ 0.08 (good fit) RMSEA<0.05 (close-fit)	Close fit

Source: Output LISREL 8.7

Table 1 shows that p value>0.05, thus it can be concluded that the research model is fit. The same result was obtained from the Goodness of Fit Indices (GFI) and Adjusted Goodness of Fit Index (AGFI)>0.90, and also from Root Mean Square Error of Approximation (RMSEA) and RMR values<0.05. Thus it can be concluded that the research model is fit with the empirical condition.

Measurement Model

The measurement model of latent variables on the dimensions explains the extent of the validity of the dimensions in the research measure of latent variables. The following table (Table 2) presents the results of the analysis of the measurement model for the latent variables on each dimension.

Table2 LOADING FACTOR BETWEEN LATENT VARIABLE-DIMENSION AND DIMENSION-INDICATOR				
Latent Variable-Dimension	**Dimension-Indicator**	**λ**	**t-value**	**Description**
Institution Partnership -> Internal		0.9	9.78	valid
	Internal ->X11	0.73	-	valid
	Internal ->X12	0.79	9.58	valid
Institution Partnership ->Society		0.85	9.92	valid
	Society ->X21	0.78	-	valid
	Society ->X22	0.81	10.25	valid
Institution Partnership ->Supplier		0.89	10.84	valid
	Supplier ->->X31	0.8	-	valid
	Supplier ->->X32	0.8	10.76	valid
Institution Partnership ->Lateral		0.92	11.08	valid
	Lateral ->X41	0.79	-	valid
	Lateral ->X42	0.8	10.86	valid
Innovation Management -> Inn. Process		0.84	10.33	valid
	InnProces->X51	0.9	-	valid
	InnProces->X52	0.76	10.03	valid
Innovation Management->Innov. Str		0.92	9.74	valid
	InnovStr->X61	0.79	-	valid
	InnovStr->X62	0.75	9.13	valid
Smart City Reputation->Credibility		0.86	10.29	valid
	Credibil ->Y1	0.89	-	valid
	Credibil ->Y2	0.85	14.19	valid
Smart City Reputation-> Reliability		0.91	11	valid
	Reliabil ->Y3	0.9	-	valid
	Reliabil ->Y4	0.88	16.61	valid
Smart City Reputation-> Responsive		0.88	10.32	valid
	Respons ->Y5	0.87	-	valid
	Respons ->Y6	0.81	12.82	valid
Smart City Reputation-> Trust		0.88	10.42	valid
	Trust ->Y7	0.89	-	valid
	Trust ->Y8	0.88	15.3	valid

The results of the analysis of the measurement model to the variables on the dimensions and indicator of research shows that all dimensions and indicators are valid with t value<1.96 (t table at α=0.05).

Structural Model Analysis

Based on the framework, the structural model in this research is as follows.
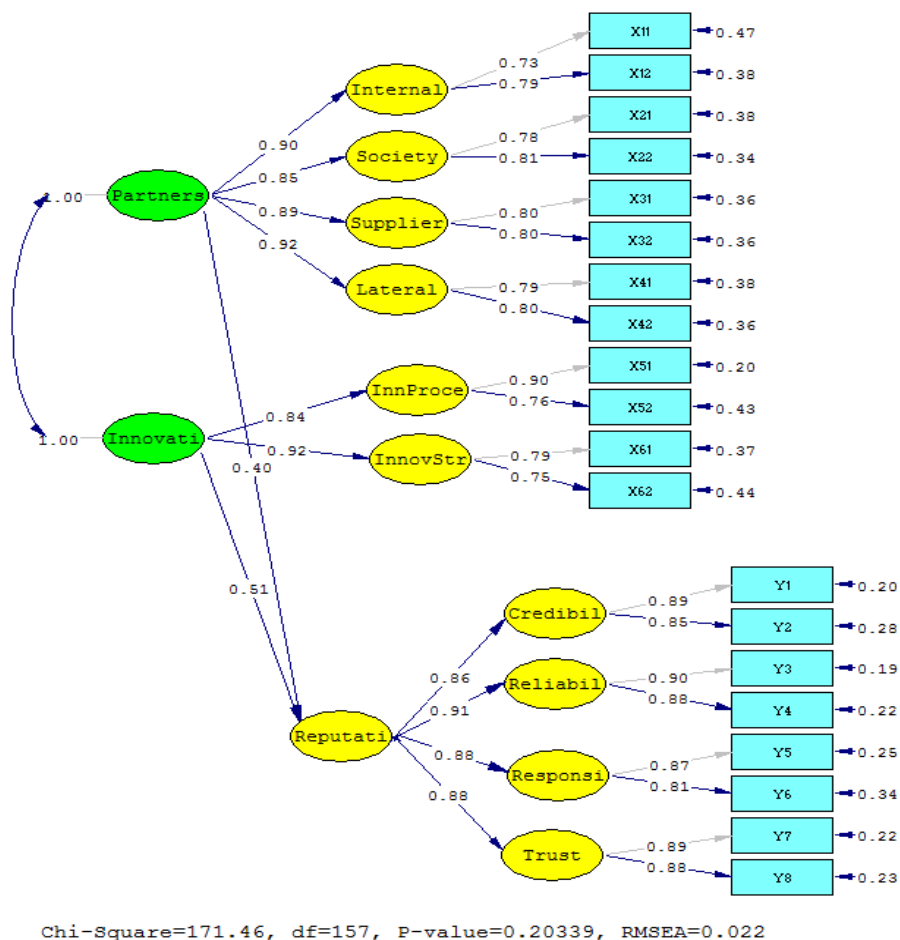
$$Y=0.40X1+0.51X2+\zeta_1$$

Description:
Y: Reputation
X1: Partnership
X2: Innovation
ζ_i: Residual

The following figure depicts the results of the complete path diagram (Figure 1):

Chi-Square=171.46, df=157, P-value=0.20339, RMSEA=0.022

FIGURE 1
COMPLETE PATH DIAGRAM OF RESEARCH MODEL

Hypothesis Testing

The influence of institution partnership and innovation management on Smart City reputation in Bandung: The following tables are the simultaneous and partial hypothesis testing:

Table 3 SIMULTANEOUS TESTING OF HYPOTHESIS			
Hypothesis	**R^2**	**F value**	**Conclusion**
Institution Partnership and Innovation Management→Smart City Reputation	0.57	148.73	Hypothesis accepted

Table 3 above shows that at the degree of confidence of 95% ($\alpha=0.05$), simultaneously there was a significant influence of institution partnership and innovation management on Smart City reputation in Bandung, where the influence was as much as 57% while the rest of 43% was influenced by other factors that were not examined.

| Table 4 PARTIAL TESTING OF HYPOTHESIS				
Hypothesis	**γ**	**t value**	**R^2**	**Conclusion**
Institution Partnership→Smart City Reputation	0.40	5.19*	0.23	Hypothesis accepted
Innovation Management→ Smart City Reputation	0.51	5.63*	0.34	Hypothesis accepted

*significant at $\alpha=0.05$ (t table=1.96)

Table 4 above shows that, partially, both institutions partnership and innovation management had significant influence on Smart City reputation in which innovation management had a greater impact (34%).

Research Findings

Based on hypothesis testing results, the obtained Research Model is as follows (Figure 2):
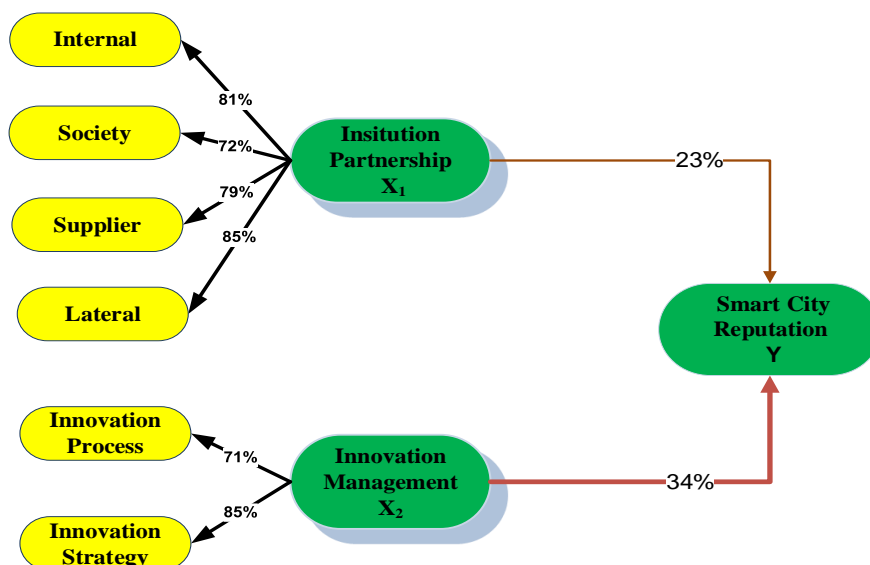
FIGURE 2
RESEARCH FINDING

The findings show that innovation management was a dominant aspect in improving Smart City reputation directly. The dimension with the highest influence in reflecting innovation management was innovation strategy, followed by innovation process. Meanwhile, the most influential dimension reflecting institution partnership was lateral partnership, followed by internal partnership, supplier partnership, and society partnership.

The findings illustrate that the improvement of Smart City reputation in Bandung was influenced by the extent of the implementation of innovation strategy. Furthermore, innovation process was mainly conducted through structured steps in directing innovation and in implementing a useful working team. The result illustrates that the implementation of innovation strategy and innovation process were the most influential aspects in improving the Smart City reputation in Bandung.

These findings support the earlier studies conducted by Ou & Hsu (2013) discovering the relationship between reputation and innovative performance. Courtright & Smudde (2009) also found that innovation drove to reputation. Moreover, Banerjee (2013) showed the role of reputation was in line with innovation.

The results of this research also prove that the institution partnership had a significant effect in improving Smart City reputation in Bandung. Aspects of the most influential institution partnership in improving Smart City reputation was the Lateral Partnership, followed by Internal Partnership, Supplier Partnership, and Society Partnership. Thus, to increase the Smart City reputation, improved partnership should be undertaken by strengthening the Lateral Partnership namely with banks, interest groups, educational institutions, and nonprofit organizations.

Efforts to strengthen institution partnerships to enhance its Smart City reputation can be made by improving the internal partnership through synergy and collaboration between divisions in the local government. It also needs to be supported by a partnership with a supplier that is a partner company in the project. The partnership has an effect on the Smart City reputation for being able to support the process of providing service to the public through the provision of appropriate and qualified technology and information devices. The fast, precise, and accurate

service delivery was influenced by rapid information technology, facilities, and adequate infrastructure.

In the development of institution partnerships to enhance the Smart City reputation, there was also a need for support in the form of efforts to strengthen the partnership with the public. It is implemented through the dissemination of information to the public about the local government's change for the better, as well as efforts to develop public loyalty to the government.

The results support the findings of Researchers in which the company's reputation was associated with partnership. Additionally, Simcic Brønn (2007) showed a significant correlation between the treatment of companies on the client's customers and the impact on the reputation of the client. Oloke et al. (2013) found the overall performance of the company with partnership was better than a company with a sole proprietorship.

The results of this research showed a novelty compared to other research. This research has examined the influence of institution partnership and innovation management on the reputation of Smart City which has not been conducted before. Additionally, in terms of analysis unit, this research involves non-profit organizations, hence, this research has originality.

The results of this research are expected to benefit the local government of Bandung City in implementing the Smart City, thus, the institution is able to improve the Smart City reputation through the improvement of innovation management supported by the improvement of institution management with various related parties.

CONCLUSION AND RECOMMENDATION

Conclusion

Institution partnership and innovation management had influence on the Smart City reputation in Bandung. Innovation management had a greater influence than institution partnership in enhancing the Smart City reputation. Thus, the improvement of Smart City reputation is based on the improvement of innovation management mainly innovation strategy that is supported by the implementation of innovation process.

Recommendation

The findings of this research can be used as a reference for further research by making these findings as part of the premise in developing the framework. In the future, it is expected that academician to be interested in doing research on local governments from a different perspective as an effort to increase the reputation and performance of the Smart City.

The results showed that innovation management contributed the most in influencing the Smart City reputation. Therefore, it is necessary to explore more about innovation strategy in the Smart City.

The findings of this research are expected to be used as input for the city government of Bandung in particular and other local governments in Indonesia that implement Smart City in enhancing the reputation of Smart City through the development of innovation management prioritized on the development of innovation strategy followed by the development of innovation process, and supported by improving the institution partnerships with related parties.

REFERENCES

Argenti, P.A., & Druckenmiller, B. (2004). Reputation and the corporate brand. *Corporate Reputation Review*, *6*(4), 368-374.

Courtright, J.L., & Smudde, P.M. (2009). Leveraging organizational innovation for strategic reputation management. *Corporate Reputation Review*, *12*(3), 245-269.

Cravens, D.W., & Nigel. F.P. (2013). *Strategic Marketing*. *10th Edition,* New York: McGraw-Hill.

Diaz-Fernandez, M., Bornay-Barrachina, M., & Lopez-Cabrales, A. (2015). Innovation and firm performance: The role of human resource management practices. In: *Evidence-based HRM: A Global Forum for Empirical Scholarship*. *Emerald Group Publishing Limited, 3*(1), 64-80.

El-Garaihy, W.H., Mobarak, A.K.M., & Albahussain, S.A. (2014). Measuring the impact of corporate social responsibility practices on competitive advantage: A mediation role of reputation and customer satisfaction. *International Journal of Business and Management*, *9*(5), 109.

Ergazakis, E., Ergazakis, K., Askounis, D., & Charalabidis, Y. (2011). Digital cities: Towards an integrated decision support methodology. *Telematics and informatics*, *28*(3), 148-162.

Exton, R., & Totterdill, P. (2009). Workplace innovation: Bridging knowledge and practice. *Ai & Society*, *23*(1), 3-15.

Fombrun, C., & Van Riel, C. (1997). The reputational landscape. *Corporate reputation review*, 1-16.

Hall, E.H., & Lee, J. (2014). Assessing the impact of firm reputation on performance: An international point of view. *International Business Research*, *7*(12), 1.

Khorakian, A., & Salehi, M.H.B. (2015). A framework for assessment and development of innovation capability through system dynamics approach. In: *ISPIM Conference Proceedings*. The International Society for Professional Innovation Management (ISPIM), 1-25.

Kim, H., Hur, W.M., & Yeo, J. (2015). Corporate brand trust as a mediator in the relationship between consumer perception of CSR, corporate hypocrisy, and corporate reputation. *Sustainability*, *7*(4), 3683-3694.

Oloke, C.O., Ijasan, K.C., & Oyedele, B.J. (2013). Performance assessment of partnership estate surveying and valuation firms in Lagos State, Nigeria. *Mediterranean Journal of Social Sciences*, *4*(13), 489-497.

Ou, Y.C., & Hsu, L.C. (2013). How does corporate reputation affect innovative performance? *International Business Research*, *6*(12), 46.

Priya, M.S., & Jesintha, P. (2011). Public private partnership in India. *Journal of Management and Science*, *1*(1), 82-94.

Scholten, S., & Scholten, U. (2012). Platform-based innovation management: directing external innovational efforts in platform ecosystems. *Journal of the Knowledge Economy*, *3*(2), 164-184.

Simcic Brønn, P. (2007). Relationship outcomes as determinants of reputation. *Corporate Communications: An International Journal*, *12*(4), 376-393.

Weisi, F.U., & Ping, P.E.N.G. (2014). A discussion on smart city management based on meta-synthesis method. *Management science and engineering*, *8*(1), 73.

Wu, H.Y., Lin, Y.J., Chien, F.L., & Hung, Y.M. (2011). A study on the relationship among supplier capability, partnership and competitive advantage in Taiwan's semiconductor industry. *International Journal of Electronic Business Management*, *9*(2), 122.

Yu, T.W., & Shiu, Y.M. (2014). Partnership between life insurers and their intermediaries. *Management Research Review*, *37*(4), 385-408.