

Diffusion of Innovation and Political Engagement Model of Millennial Generation in a Semi-Urban City

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Recently, developments in science and technology are characterized through many discoveries which can be applied to various kinds of science, and increasingly affect human life. Various phenomena, issues, and dynamics related to the sense of place, social capital, the diffusion of innovation, and political engagement occurring in demographical groups of millennial generations in a semi-urban city are the main points to be developed. This study aimed to analyze the influence of the sense of place on social capital, the influence of social capital on diffusion of innovation and the influence of social capital on political engagement. Subsequently, this study was also aimed at analyzing the effect of social capital in mediating the sense of place on diffusion of innovation as well as mediating the influence of the sense of place toward political engagement.

Key words: *Millennial generation, Semi-Urban, Sense of Place, Social Capital, - Diffusion of Innovation, Political Engagement.*

Introduction

The proportion of the total number of millennial generation in the general population was about 34.45% in 2018, or more than one third of the population of Indonesia. It reached 261.89 million people in 2017 (Badan Pusat Statistik, 2018). As a part of a social entity within a significant number of the population, its existence, of course, becomes an important part which indicates ways to consider Indonesia's future in terms of economy, society and politics. Indonesia is also preparing to face demography bonus which will culminate in 2030. Among social studies, the millennial generation is the demographical group born from 1981 to 2000 (Reeves & Oh, 2008). According to Kian & Yusoff (2012), the millennial generation is more cooperative and optimistic than their elders since most of them have a high educational background or professional training. Some of the characteristics of millennial generation as reviewed by Kian & Yusoff (2012) focus on career, optimism, pro diversity or

tolerance, team-builders, technology users, easygoing nature, happiness and the balance of life and career and seeking acknowledgement and achievement. Through technology, the millennial generation is skilled at assimilating information quickly, gaining wider knowledge and have a high level of multitasking skill.

According to the data of BPS Padang (Padang, 2018), Padang population increased to 927,168 people in 2017, up 12.200 from the previous year. Based on the BPS survey, 91% of the Padang inhabitants over who are in the labor force are aged 15 years old or older (Padang, 2018). The total number of the millennial generation approaching the age of 15-39 years old in Padang was 425.053 people (212.943 men and 212.110 women), or about 48.85% of the total Padang population. According to Setyobudi (2001), the process of citification that occurs essentially does not emerge within or follow the development of dynamic cultures and the customs of a society. These changes are caused by external factors so that the changes that occur are heterogeneous, and the growth of the ecological environment is ideal with the socio-cultural development of the local inhabitants. Thus the city never reaches the development stage into a solid town or a whole city, which is characterized by the existence of an integrated municipal unity. Setyobudi (2001) concluded that there is no true city, including Padang which is still in the process of becoming a real urban centre. Cities in Indonesia are still closer to the concept of the village whose understanding is similar to the concept of pseudo (fake, not real, or pseudo) urban (semi-urban) (Setyobudi, 2001). The greatness of buildings, houses, and residences may not necessarily assure the true process of urbanization. This argument is based on pseudo urbanism which is where an area snare people in a process of transformation that leaves the agriculture life, but where industrial activities are still not dominant.

BPS data (Statistik, 2018) shows the population of Indonesia is starting to shift from rural to urban areas. Based on the population census conducted by BPS (Statistik, 2018) in 2010, the proportion of Indonesian population living in cities reached 49.8%, and it is predicted to increase in the coming years. In 2020, BPS (Statistik, 2018) projects that the urban population will reach 56.7%, and in 2035 will reach 66.6%. Urban areas can be vulnerable due to several aggravating factors such as rapid and unplanned establishment, degradation of environment, increasingly difficult livelihoods, and resource pressures (Mpanje, Gibbons, & McDermott, 2018). These challenges will gradually continue to increase as the population living in urban areas is projected to increase from 53% currently to 70% in 2050. The topic of adolescence is a quite interesting issue to discuss, including other issues and dynamics that will also be discussed in this study. The adolescent related issues are also part of urban issues related to the sense of place, social capital, diffusion of innovation, and political engagement.

Literature Review

Sense of Place

The sense of place theory was first developed in the 1970s (Deutsch, Yoon, & Goulias, 2013), and has been studied intensively in the last 40 years (Acedo, Santa, Painho, & Henriques, 2018). One of the researchers is Tuan (1974), who defines 'sense of place' as an affective bond with the material environment (Deutsch et al., 2013). According to Masterson et al., (2017), sense of place is formed through experience, in which the experience is not solely individualistic, but also social. Sense of place consists of symbols, cultural values, personal and group perception, as well as experience (Shmuel et al., 2018). According to Deutsch et al. (2013), sense of place is as an affective bond to the physical or material environment and has been identified with various psychological indicators, namely satisfaction, atmosphere, and society. While Dale, Ling, & Newman (2008) define sense of place more to the individual, personal sense of place is the unification of self and space so that a person's identity is intrinsically associated with his environment. Defined by Jorgensen & Stedman (2001), in general, sense of place is the inherent meaning of spatial settings by a person or group.

According to Najafi & Shariff (2011), sense of place is an emotional connection between people and places. Some previous studies, such as Acedo, Santa, et al. (2018), Acedo, Painho, Casteleyn, & Roche (2018), Acedo, Painho, & Casteleyn (2017), Shmuel et al. (2018), Najafi & Shariff (2011), and Trell & Hoven (2010) show that sense of place is one of the key parts of creating relationships between individuals and physical environments. Places are associated with human values and principles (Najafi & Shariff, 2011). Consequently, places become a specific space that is created by the meaning and values of each user. Each place has its unique character which is an important problem in social sciences (Najafi & Shariff, 2011). Sense of place in this study uses the dimensions and indicators of (Azizi & Shekari, 2018), such as place attachment, place identity, place dependence, place satisfaction, layout of physical features, and social bonding.

Social Capital

The concept of social capital has a substantial lineage in social sciences (Smith, Phillipson, & Scharf, 2002). The term capital was first used by an American political reformer, Lyda Hanifan, in a 1916 study describing rural community centers, and was often traced back in the early 20th century (Putnam, 2000). Social capital is a relatively contemporary theory, pioneered by Pierre Bourdieu in 1985. Its popularity has increased rapidly over time and has been adopted by various disciplines, including economics, political science, and organizational theory (Glenane-Antoniadis et al., 2003). The definition of this social capital

concept is quite complex in that it has been referenced and illustrated in various explanations and meanings throughout the literature. According to Woolcock & Narayan (2000), the basic idea of social capital intuitively is family, friends, and colleagues who are important assets, assets whom we can call during a crisis, whom we can enjoy with, and whom we can benefit from to gain material. While there have been many descriptions of social capital, it is generally agreed that social capital is the goodwill affected by social relations, and that this can be mobilized to facilitate actions (Adler & Kwon, 2002).

According to Kapucu (2011), social capital is a relationship structure in the scope of individuals, connections, and networks among individuals and organizations, consisting of reciprocal beliefs, norms, values, and behaviors. The definition and analysis of social capital along with the elements included in it can create special capacities in certain cities in which, if the elements are used properly, the foundation of the city's sustainability can be established (Moayedi & Kheiruddin, 2014). Several studies have been conducted specific to social capital research, and there has been no agreement on a series of definitions, dimensions, and indicators for measuring social capital. The social capital theory consists of an inherently abstract construction and it requires a subjective interpretation that each researcher transfers to the operational phase. The operational phase is an indirect substitute for related construction (Narayan & Cassidy, 2001). The dimensions of social capital in this study are adapted to the characteristics and issues of the millenials. The social capital dimensions and indicators in this study are taken from Hamdan, Yusof, & Marzukhi (2014), such as groups and networks, beliefs, collective action and cooperation, and social cohesion and inclusion, and also two additional dimensions along with the indicators, which are norms from Azizi & Shekari (2018) and tolerance from Lebedeva, Osipova, & Cherkasova (2013).

Diffusion of Innovation

Innovation is an idea, practice, or object that is considered new by an individual or other adoption unit (Rogers, 2003). An innovation is best understood as something new that is successfully incorporated into social or economic processes (Monge, Hartwich, & Halgin, 2008). Rogers (2003) argues that a person's innovation-decision process involves five-step sequences happening in the following order: knowledge, persuasion, decision, implementation, and confirmation. The idea of diffusion or dissemination of new ideas and products has been studied since the early 20th century (Scott & McGuire, 2017). The diffusion of innovation is a theory of how an idea and new technology reaches a culture (Rogers, 2003). According to Rogers (2003), a diffusion of innovation is a process by which an innovation is communicated through certain channels over time among members on the social system. The theory of the diffusion of innovation gains widespread popularity as it provides a basis for understanding how social change takes place through the adoption of new ideas, objects, and practices by individuals, communities, and society. The key components



of the diffusion theory are the following: innovations, adopters, social systems, individual adoption processes, and diffusion systems (Dearing, 2014).

Four elements of the innovation diffusion theory that mark the spread of new perceived ideas are the innovation itself, the communication channels used for education and socialization, the adoption of an idea from time to time, and the innovations introduced to the members on the social system (Rogers, 2003; Scott & McGuire, 2017). Based on the four elements of that framework, there are more sub-theories and concepts of innovation diffusion theory which are applied and developed continuously (Scott & McGuire, 2017). As stated by Mannan & Haleem (2017), some of past research hypotheses state that the decline experienced during the diffusion process is more prominent than the delays experienced during the product's manufacturing or development stage. Mannan & Haleem (2017) have identified seventeen sub-factors (indicators) of four dimensions mentioned in diverse study references. Therefore, there are more determinants considered for future research. These determinants will have a regional bias, and will further validate by the use of statistic tests. The dimensions and indicators of the diffusion of innovation used in this study are from Mannan & Haleem (2017), namely innovation, social system, communication, and time.

Political Engagement

Political engagement and political participation are considered to be essential requirements for democracy to function effectively (Barrett & Zani, 2014). According to Pontes, Henn, & Griffiths (2018), political engagement is to have an interest, to pay attention, to have knowledge or opinion, to become conscious, to become proactive, and to continually get information about politics. Political engagement is the psychological dimension of being involved in politics (Klesner, 2007). Young generations are often categorized as problematic groups, indicating the low number of voters, the lack of confidence in democratic institutions, and the signs of skepticism and cynicism towards politicians and political parties (Dalton, 2008). Some researchers argue (e.g. Barrett, 2012; Dalton, 2008) that a modern young generation begins to relate to politics and public life differently from the concept of political engagement that becomes a dominant characteristic among previous generations (Xenos, Vromen, & Loader, 2014).

Pontes et al. (2018) propose an updated definition of political engagement expressed by Barrett (2012) which is mentioned previously, and they develop the definition by including the literature in the field of political engagement, as well as some ideas popping up in the Focus Group Discussion (FGD) which is held by them with young people, and the ideas have not received any statistical test. To map the definition of political engagement that considers the reality and conception of young people, Pontes et al. (2018) propose that political engagement should be defined as to have interests, to pay attention, to have knowledge or

opinion, to be conscious, to be proactive, and to continually be informed about politics. This political engagement can occur online and offline, as young people do not distinguish between these two realities. Pontes et al. (2018) also argue that political engagement can be understood as a psychological process that includes cognitive and emotional dimensions.

Cognitive dimensions can be defined as the investment and the willingness of people to exert the effort necessary to understand and master the complex ideas and skills which are hardly associated with political problems. The action examples of cognitive political engagement may include searching for political information online, signing an online or offline petition, interested in political agendas, and watching political debates (Pontes et al., 2018). The emotional dimensions of the political engagement reflect positive and negative reactions toward politicians' actions and instructions, positive and negative reactions toward others' opinions on politics, perception of political parties, and beliefs about political values (Pontes et al., 2018). The examples of emotional political engagement are sharing one's thoughts regarding politics; commenting on social media so that other people read, use or display symbols or marks that represent the support for political reasons; and/ or show opinions on the issue of citizens or politics. Political engagement is identical to political participation. Participation teaches the citizens about politics and increases attention in public affairs (Soule, 2001). Political participation is essential for a healthy democracy (Homana, 2018). The dimensions and indicators of the engagement in the study are from Pontes et al. (2018), namely cognitive and emotional, as well as another dimension related to the political area of Narayan & Cassidy (2001), which is to vote in the last local elections.

The Interconnectedness of Sense of Place, Social Capital, Diffusion of Innovation and Political Engagement

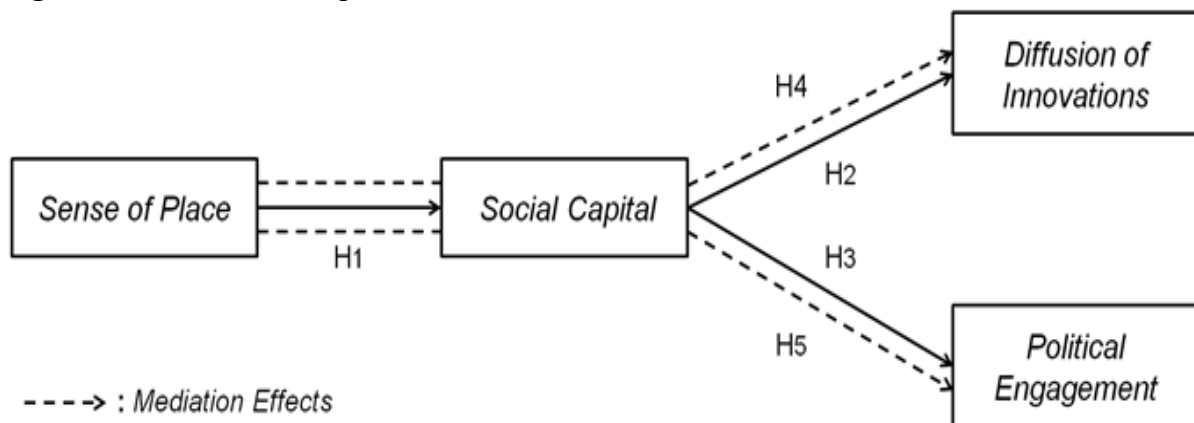
Places play an effective role in encouraging social bonding in urban communities. Places are media for cultural, social, and individual relationships (Hashemnezhad, Heidari, & Hoseini, 2013). Empirical evidence supports that there is a positive and significant relation between citizens' sense of place with social capital (Azizi & Shekari, 2018). The positive relation between sense of place and social capital has been examined in the previous literature of environmental psychology (Dale et al., 2008). To increase the social capital of a community, city planners should pay particular attention to physical and social bonds to a place or city (Azizi & Shekari, 2018). As stated by Moayedi & Kheiruddin (2014), the definition and analysis of social capital along with the elements included in it can create special capacities in the cities that if used properly can provide a basis for a part of the city sustainability.

According to Zheng, Wu, & Xie (2017), social capital is a tangible and intangible source for the organization to use appropriately. Further Zheng et al. (2017) explain that social capital is regarded as a value, which is shared by people involved in social networks because of the

common cultural norms, effective interactions, mutual trust, and personal relationships. In the last two decades, researchers have given a lot of attention to the role of cultural values on economic and social development. In particular, the pivotal role of the diverse cultural aspects of the development of innovation has been emphasized in various literature (Zheng et al., 2017). Consequently, it is essential to understand how social capital as a core cultural value affects the process of innovation and innovative performance (the diffusion of innovation).

For over a decade, sociologists, political scientists, and educators have examined the ways that social capital can increase the productivity of groups and individuals in the field of economics, politics, social, and in the functioning of democratic institutions (Kahne, Chi, & Middaugh, 2006). A successful and efficient democracy system is most likely found in a tolerant and cooperative society, showing a high level of life association and trust among them. On the other side, in the communities lacking social capital, they tend to exhibit greater inefficiencies and corruption (Putnam, 1993). From the research conducted by Putnam (2001), Rotemberg (2009), Edlin et al. (2007), LeRoux and Krawczyk (2014), Berinsky (2016), and Fowler (2006), they have also shown that becoming the members of an organization community will likely be able to increase political participation (Bwalya & Sukumar, 2018). Based on the interconnectedness of variables, the research conceptual framework is as follows in Figure 1 below:

Figure 1. Research Conceptual Framework



Research Hypotheses

Based on the conceptual framework, the research hypotheses can be expressed as follows (1) Sense of place is positively and significantly related to social capital; (2) Social capital is positively and significantly related to diffusion of innovation; (3) Social capital is positively and significantly related to political engagement; (4) Sense of place is positively and significantly related to diffusion of innovation with social capital mediation; and (5) Sense of

place is positively and significantly related to political engagement with social capital mediation.

Methodology

This research used an explanatory research methodology, utilising quantitative methods through surveys with a questionnaire instrument which is analysed with Partial Least Squares-Structural Equation Modelling (PLS-SEM). This study explained the influence of each variable, and the object in the study is the millennial generation in the city of Padang (semi-urban city). The population in this research was the entire millennial generation in Padang city, with a population of 425,053 (Padang, 2018). The sampling technique used was convenience sampling. The samples were categorized into gender, age, level of education, residence, occupation, income per month, staying duration in Padang, the reason for adopting a product of innovation, the use of voting rights in the regional elections, and the use of voting rights to presidential elections. The criteria of millennial generation who eventually became respondents were (1) the minimum education level which was high school level or equivalent; (2) having stayed in Padang for at least 1 year; (3) having used the voting rights in Padang mayoral election and presidential election; and (4) was not a soldier or police. Because the population number was acknowledged, the Slovin formula (1960) was applied to acknowledge how many samples would be used, and the obtained number for samples was 400 respondents.

Results and Discussion

The indicator used was based on the validity testing result with the loading factor value above 0.700 (> 0.700). The Average Variance Extracted (AVE) value from the reduction of invalid indicator result was the sense of place 0.580, the social capital 0.561, the diffusion of innovation 0.569, and the political engagement of 0.591. The fourth AVE value of the variable was > 0.500 and could be declared valid. The reliability test used the Cronbach's alpha value > 0.600 and the composite reliability > 0.700 . The reliability test result showed that all the variables were above the minimum value, so it could be concluded that the reliability of each variable had been fulfilled.

The determinant coefficient value or the R Square (R^2) of social capital was 0.725 meaning that the percentage of sense of place toward the social capital was 72.5%. The innovation diffusion value or R^2 value was 0.684, meaning that social capital regarding the diffusion of innovation was 68.8%. The R^2 value of political engagement was 0.520, meaning that the impact of social capital toward political engagement was 52%. According to (Hair et al., 2017), in the structural model, the Q^2 value which was greater than zero for the specific reflective endogenous latent variable showed the relevance of the line model prediction for a

specific dependent constructions. To calculate the Q^2 value, the formula used was $Q^2 = 1 - (1 - R^2) (1 - R^2) (1 - R^2)$, meaning that $Q^2 = 1 - (1 - 0,684) (1 - 0,520) (1 - 0,725)$ which was $Q^2 = 0,958$. $Q^2 > 0$ indicated that the models had predictive relevance. As stated by Hair et al. (2017), the value of t_{table} or the critical value for one-tailed tests with alpha 5% was 1.65, or the P value was lower than the significance (α) of 5% (0.05). Table 1 below presents these results.

Table 1: Hypotheses Testing Result

| Hypotheses | Original Sample (O) | Sample Average (M) | Deviation Standard (STDEV) | t Statistic (O/STDEV) | P-Values | Notes |
|---|---------------------|--------------------|----------------------------|-----------------------|----------|--------------------------|
| Sense of place → Social capital (H ₁) | 0.852 | 0.857 | 0.022 | 38.824 | 0.000 | Positive and significant |
| Social Capital → Diffusion of innovation (H ₂) | 0.751 | 0.759 | 0.133 | 5.659 | 0.000 | Positive and significant |
| Social capital → Political engagement (H ₃) | 0.565 | 0.568 | 0.133 | 4.239 | 0.000 | Positive and significant |
| Sense of place → Social capital → Diffusion of innovation (H ₄) | 0.640 | 0.652 | 0.120 | 5.351 | 0.000 | Positive and significant |
| Sense of place → Social capital → Political engagement (H ₅) | 0.481 | 0.488 | 0.121 | 3.983 | 0.000 | Positive and significant |

Source: Processed data, 2019

The probability influence value of sense of place toward social capital 0.000 was smaller than the value of sig 0.05. The $t_{statistic}$ value was 38.824, higher than the value of t_{table} 1.645. It can be concluded that sense of place affected positively and significantly to social capital. The probability influence value of social capital on the diffusion of innovation 0.000 was smaller than the value of sig 0.05. The $t_{statistic}$ value was 5.659, higher than the value of 1.645. It could be concluded that social capital affected positively and significantly towards the diffusion of innovation. The probability influence value of social capital towards political engagement 0.000 was higher than the value of sig 0.05. The $t_{statistic}$ value was 4.239, higher than the t_{table} value of 1.645. It could be concluded that social capital affected positively and significantly towards political engagement. The probability influence value of sense of place toward diffusion of innovation with a mediation of social capital was smaller than the value of sig 0.05. The $t_{statistic}$ value was 5.351, higher than the t_{table} value of 1.645. It could be concluded that sense of place affected positively and significantly towards the diffusion of innovation with a mediation of social capital. The probability influence value of sense of place towards political engagement with a mediation of social capital 0.000 was smaller than

the value of sig 0.05. The $t_{\text{statistic}}$ value was 3.983, higher than the t_{table} value of 1.645. It could be concluded that sense of place affected positively and significantly towards political engagement with a mediation of social capital.

Mediation Effects

Based on the outer model and inner model testing result, the testing of mediation effects could be done as it fulfilled all the measurement quality criteria. The track analysis was conducted by calculating the direct, indirect, and total impact and the results are presented in Table 2 below.

Table 2: Direct and Indirect Impact

| Direct and Indirect Impact | Original Sample (O) | Sample Average (M) | Deviation Standard (STDEV) | t Statistics (O/STDEV) | P-Values |
|--|---------------------|--------------------|----------------------------|------------------------|----------|
| Direct Impact | | | | | |
| Sense of place → Diffusion of innovation | 0,087 | 0,083 | 0,139 | 0,628 | 0,530 |
| Sense of place → Political engagement | 0,177 | 0,180 | 0,159 | 1,109 | 0,268 |
| Indirect Impact | | | | | |
| Sense of place → Diffusion of innovation | 0,640 | 0,652 | 0,120 | 5,351 | 0,000 |
| Sense of place → Political engagement | 0,481 | 0,488 | 0,121 | 3,983 | 0,000 |

Source: Processed data, 2019

The direct impact of sense of place against diffusion of innovation and political engagement was insignificant, whereas if it was mediated by social capital, sense of place would bring impacts toward the diffusion of innovation and significant political engagement. It could be concluded that social capital had a full mediation impact. The mediation effect testing could also be conducted by calculating Variance Accounted For (VAF). For the mediation testing, the method used was the VAF method guided on these following criteria, (1) If the VAF value was > 80%, then it showed full mediations; (2) If the value of the VAF was between 20% - 80%, it could be categorized partial mediation; and (3) if the VAF value was < 20%, it could be said that there was no mediation effect. The formulation to calculate the VAF value was indirect effect/ total effect, then the VAF calculation could be done as follows below in Table 3:

Table 3: Variance Accounted For (VAF)

| Impact Notes | Calculation Result |
|---|--------------------|
| Indirect impact = SOP → DOI = 5,351 * SOP → PE = 3,983 | 21,313 |
| Direct impact = SOP → DOI = 0,628 * SOP → PE = 1,109 | 0,696 |
| Total impact = 21,313 + 0,696 | 22,009 |
| VAF = Indirect impact / Total impact VAF = 21,313 / 22,009 | 0,9684 or 96,84% |

Source: Processed data, 2019

As the VAF value was 0.9684 (96.84%), it could be concluded that the mediation effect of social capital was full mediation. Social capital had key roles and strong impact as mediation for the impact of sense of place toward diffusion of innovation and political engagement. In the other words, if social capital did not exist, the sense of place would not be able to affect the diffusion of innovation and political engagement.

The Impact of Sense of Place toward Social Capital

Sense of place has a positive and significant impact on the social capital of millennials in a semi-urban city. The better the sense of place is, the more increasing the social capital will be. On the other hand, if the sense of place is weak or bad, social capital will decrease. These results were supported by several previous studies, such as Azizi & Shekari (2018), Acedo et al. (2017), as well as Baum & Palmer (2002). Dale et al. (2008) researched sense of place on small communities in a semi-urban city (they used the term ‘rural town’). In their opinion, if the sense of place has weakened, it is difficult to diversify the traditional economic base and to encourage sustainable economic, environmental, or social development. Sense of place is an important part of establishing a relationship between individuals and the physical environments. Different from sense of place, social capital refers to the relationship between individuals and other individuals, it is capable of raising trust, norms, and networks that can be utilized to solve problems together. It has been a long-established culture in Indonesia including in Padang, which is depicted through the culture of mutual cooperation.

The relation between sense of place and social capital is seen in the millennial generation of Padang in the last few years. Some social movements depicting their love of the city are established. Those social movements become a social capital for other communities of Padang millennial generation. It describes the characteristics of how they are facing complex relationship between them and the environment, how they trace various issues, preferences, access control of natural resources, the meaning and the culture in the use of resources, which then raises the participation to improve Padang which is a semi-urban city. Sense of place can

increase urban resilience through strengthening the relationship between people and their environment (Frantzeskaki, van Steenberg, & Stedman, 2018). The definition, analysis, and elements of social capital can create special capacities in the cities, and if they are used properly, they can settle as a basis of the city's sustainability (Moayedi & Kheiruddin, 2014). Zheng et al. (2017) suggest that social capital is a tangible and intangible source for the organization to use appropriately. According to Woolcock & Narayan (2000), the basic idea of social capital is family, friends, and peers who become important assets; assets whom we can call during crisis, whom we can enjoy with, and whom we can benefit from to gain material. With the sense of place and social capital that have been awakened by the millennial generation of the city of Padang, it can be an asset for themselves and the city of Padang in the future.

The Impact of Social Capital toward Diffusion of Innovation

Social capital has a positive and significant influence on the millennial innovation diffusion in a semi-urban city. The better the social capital is, the greater the diffusion of innovation will be. On the other hand, if social capital is weak or bad, the diffusion of innovation will decrease. The results were supported by several previous studies, such as Frank, Zhao, & Borman (2004), Monge et al. (2008), Crescenzi et al. (2013), Ishak et al. (2017), Lebedeva et al. (2013), Kashi & Afsari (2014), as well as Ghazinoory, Bitaab, & Lohrasbi (2014). Some researchers have regarded social capital as a determinant of the adoption of innovation (Monge et al., 2008). According to Ghazinoory et al. (2014), researchers have given much attention to the role of cultural values on economic and social development in the last two decades. In particular, the important role of various cultural aspects on the development of innovation has been emphasized in numerous literature. As a result, it is essential to understand how social capital as a core cultural value affects the innovation process and innovative performance. There is a power that is capable of transferring an innovation across the community or social system, one of which is a social capital owned by a community member in a social system.

According to Rogers (2003), diffusion of innovation is a study of how and why innovations are adopted by people, groups, organizations, or countries (subsequent adoption), and the levels and also the adoption patterns. Based on the respondents' identity description it shows that there are 192 people (48%) saying that their reason to adopt a product of innovation is due to the job's necessities. Next, by reason of following trends or lifestyle, there are 189 people (47.2%), while others adopt a product of innovation because of these several reasons: they are curious about new things, they want to try something new, they can perceive a new idea of innovation results, they want to fulfil their daily needs, they only want to try it, and the product can improve the standard life. According to Hopp & Barker (2016), younger people tend to use the internet very frequently.



Innovation is synonymous with the millennial generation and with emerging digital technologies, including information technology or the internet, and the most visible things seen with the millennials in Padang, in contrast to previous generations, is the matter of technology use. Change is a necessity in human life, and every stage of change causes faster even disruption movement. The rapid development of information technology has caused an evolution in industry, known as the industrial revolution 4.0. This phenomenon is also happening in other sectors such as tourism 4.0, agriculture 4.0, healthcare 4.0 etc. These incremental revolutions occur from time to time and are caused by human beings who continue to find the easiest way to complete activities and this obviously seen from the millennials' instant lifestyle.

The Impact of Social Capital toward Political Engagement

Social capital has a positive and significant impact on the political engagement of millennials in a semi-urban city. The better the social capital, the more increased political engagement will be evidenced. On the other hand, if social capital is weak or bad, political engagement will decline. The results were supported by several previous studies, such as Kahne et al. (2006), Narayan & Cassidy (2001), Bwalya & Sukumar (2018), and Tossutti (2016). Based on observations conducted in Padang, there are various and diverse communities or organizations of millennials beginning to be established. They are from communities or organizations related to hobbies, professions, arts and culture, sports and others, to the alumni community of a school or college. This suggests that the millennial generation of Padang city has a social capital of its community, thereby encouraging their engagement in politics.

According to Narayan & Cassidy (2001), political engagement is as a result of social capital. Political engagement can be a meaningful determinant of social capital, or political engagement is the consequence of social capital (Narayan & Cassidy, 2001). As stated by Klesner (2007), social capital is an important factor in encouraging higher levels of political participation, which is usually attributed to a richer and more complete democracy experience. Indonesia has been through several steps in terms of democracy, and Indonesia is the third-largest democracy in the world after India and the United States. Indonesia is known as a country with simultaneous elections in the world with data in the year 2014 of 187 million voters. Indonesia is also known as the most complex democracy by region size and electoral organizers and is also known as the world's largest democratic Muslim country. Political engagement makes people aware, what the government has done and how this will bring an impact on the environment near one's house. In terms of voice participation, millennials are quite significant voters in succeeding in the elections, especially at the 2019 democracy feast. Voters from millennials were 70 to 80 million from 193 million voters. About 40% to 50% of the people have a major influence on the outcome of the elections, and

the society will determine the future leader that will lead and advance the nation in the next few years.

Many are pessimistic about the political engagement of millennials, including on the previous research outcomes. However, the millennial generation of Padang city is demonstrating a different fact, the majority of which have used their voting rights to the regional head elections, elections, or presidential elections. The years 2018, 2019, and 2020 have been very political. In 2018 generations, the millennial city of Padang faced the selection of the regional head of Padang. 2019 year election and presidential election. Meanwhile, in the year of 2020, the millennial generation in Padang city will also face the governor election West Sumatera province. Moreover, the dynamics of presidential election of 2019 are very attentive as it may surge the political engagement of Padang's millennials.

Social Capital as a Mediation

Sense of place with social capital mediation has a positive and significant impact on the diffusion of innovation and political engagement of millennials in a semi-urban city. The better the sense of place and social capital are, the more increasing the diffusion of innovation and the political engagement will be. On the other hand, if the sense of place and social capital are weak or bad, the diffusion of innovation and political engagement will be increasingly declining. The concept of social capital is complex, and it has been referenced and illustrated with various explanations and meanings in many literature. Social capital plays an important role in linking or becoming mediation between sense of place and diffusion of innovation and political engagement. If social capital does not exist, sense of place will not be able to influence the diffusion of innovation and political engagement. According to Zheng et al. (2017), social capital is associated with the extent to which people share information, and are concerned about the resources embedded in networking relationships. Social capital can be explained through changes in relationships among people who facilitate action (Coleman, 1988). "This is not what you know, but who you know." That quotation summarizes a lot of conventional wisdom on social capital (Woolcock & Narayan, 2000).

Conclusions

The model framework of this study has been proven and is acceptable. It has confirmed the previous research theory in the field. In terms of novelty, social capital has been found to positively contribute and play a role as a mediation between the influence of sense of place on the diffusion of innovation and political engagement which have not found in previous studies. The results of the development of dimensions and indicators on social capital variables adjusted for millennial generation's characteristics and problems can contribute to



social capital, as well as the dimensions and indicators of the diffusion of innovation and political engagement. Dimension indicators for each variable have also been developed. As a whole, the results of this study are expected to provide alternatives for consideration in future research.

This research can be implicated in subsequent studies related to the framework of the model, variables, dimensions, and that the indicators in this research can form an alternative theory, or can add science literature in the social field of humanities in the future. This research can also have implications for the behavior of millennials in a semi-urban city. Millennials become aware of the importance of maintaining emotional relationships with their physical surroundings, the people around them (family, neighbors, friends, co-workers, and others), the improvement of the diffusion of innovation, and the awareness of the importance of being involved in politics. This study is also a reference for the government in policy making or regulation.

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