

Monkey see, monkey do? Examining the effect of entrepreneurial orientation and knowledge sharing on new venture creation for Gen Y and Gen Z

Entrepreneurial
orientation

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Abstract

Purpose – This study aims to examine the effect of entrepreneurial intention and attitude towards knowledge sharing on new business creation by comparing two generations, *Y* generation (millennials) and *Z* generation (post-millennial). In addition, the current study uses a social cognitive theory as a point of departure to test the research hypotheses.

Design/methodology/approach – This study deploys a quantitative approach (hypothetic-deductive approach) by surveying 300 respondents representing the two Indonesian generations. The questionnaire consisting of demographic items (age, education, etc.) and variables was the primary research instrument. This study used regression analysis, a Wald test for examining the proposed hypotheses and a *t*-test to provide a deeper analysis of the findings.

Findings – Findings from the current study show that Gen *Y* is still seeking a balance for their learning sources by involving in their social environments as well as exploring the digital world. In contrast, Gen *Z* is much more dominant in the independence to learn things that interest them. They have less dependency on social patrons but prioritise themselves as the leading model.

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Practical implications – The findings of this study provide practical implications for higher education institutions in the development of entrepreneurship education to achieve learning effectiveness.

Originality/value – This study aims to contribute by providing empirical evidence in the effect of entrepreneurial orientation and attitude towards knowledge sharing on new venture creation with particular reference to Gen Y and Gen Z, suggested by previous studies. Although Gen Y and Gen Z are digital natives, this study provides insight into a shift in the characteristic of two generations, as also found in comparison to previous generations, such as Baby-Boomer vs Gen X and Gen X vs Gen Y. This study proclaims the need to adjust organisational theories to enable them to explain the shifting phenomena at the micro and macro level for every generation. Exploratory research to better understand the characteristics of a generation in other settings is a crucial proposal proposed by this study.

Keywords Entrepreneurial orientation, New venture creation, Gen Y, Attitude towards knowledge sharing, Gen Z

Paper type Research paper

Introduction

The creation of new ventures is unquestionably one of the powerful ways to alleviate poverty that encourages many countries to allocate institutional, social and economic support for the venturers (Henry and Treanor, 2013). This creation arguably aims to accumulate capital and develop it and provide benefits and welfare for various stakeholders such as customers, suppliers, investors, employees, social communities and environment.

The creation of new business is defined as a series of activities starting from the intention to form a new business, acquiring the required resources, carrying out various activities within the corridor of existing rules and exchanging resources with other parties (Katz and Gartner, 1988). Emphasis on the psychological, cognitive and personal traits of creating a new business is a concern for many researchers today because macro aspects such as social structure, population and the value system of society are seen as unable to explain how the process of an individual creating a new business in detail (Katz and Gartner, 1988; Hindle and Al-Shanfari, 2011; Davidsson and Gordon, 2012; Salamzadeh, 2015). More specifically, the literature on business venturing indicates that various individual aspects such as proactive attitude and the courage to take risks (Kropp *et al.*, 2008), acceptance of risk (van Gelderen *et al.*, 2005), self-actualisation, dissatisfaction with existing conditions (Dubini, 1989) and knowledge sharing (Ozgen and Baron, 2007) are factors in affecting new business creation. Previous studies have mainly focussed on two determinant variables of new business creation, namely entrepreneurial orientation (i.e. innovativeness, risk-taking and proactiveness) (Donbesuur *et al.*, 2020) and attitude towards knowledge sharing (Boateng *et al.*, 2017; De Clercq *et al.*, 2013; Hasan, 2014).

Innovativeness is a person's tendency to try new and unusual activities or emphasise new approaches instead of previously used approaches (Santos *et al.*, 2020). Risk-taking is a person's tendency to dare for acting in risky situations or venture into the unknown (Koe, 2016), and proactiveness is an individual's tendency to take action first rather than waiting for someone else to do it (Santos *et al.*, 2020). Attitude towards knowledge sharing is a learned predisposition of an individual to disseminate or exchange knowledge, ideas, experiences or skills from one person to another (Hasan, 2014).

The relationship between individual entrepreneurial orientation and attitude towards knowledge sharing on creating new ventures has consistently shown a positive effect (De Clercq *et al.*, 2013; Donbesuur *et al.*, 2020). However, to the best of our knowledge, a little study paid attention to the context of different generation characteristics (Henley, 2017). Therefore, the current study aims to examine the two most dominant factors, namely individual entrepreneurial orientation and attitude towards knowledge sharing in affecting business creations by comparing the characteristics of the two generations (Gen Y vs Gen Z). Some scholars suggest examining the

relationship between these variables in the generational cohort framework because it can lead to different findings because of differences in behaviour between generations (Liu *et al.*, 2019; Okros, 2020). Generational investigations can take place within the framework of the generational theory, which states that people who live in specific periods tend to have social experiences and behaviours that are similar and comparable to generations in other periods (Strauss and Howe, 1991; Howe and Strauss, 2000; Thangavel *et al.*, 2019).

Social generations after the industrial revolution can be classified into five groups, i.e.: the silent generation (born in 1928–1945); the baby boomers generation (born in 1946–1964); generation X (born in 1965–1980); the Gen Y (born in 1981–1996) and the Gen Z (born in 1997–2010s) (Dimock, 2018). Some researchers studied these generation types. For instance, Woodrum (1985) studied new business initiation among senior Japanese immigrants born between 1901 and 1912 (silent generation), whereas Dodd and Seaman (1998) did for British entrepreneurs born in 1946–1964 (baby boomers). A study by Nair and Pandey (2006) took respondents from Gen X entrepreneurs in India (born in 1965–1980), and recently, Henley (2017) investigated the creation of new ventures by baby boomers, Gen X and Gen Y (millennials) using Global Entrepreneurship Monitor data. Those studies have mainly emphasised the generations aspect, but none of them examined the factors affecting new business creation, particularly entrepreneurial orientation and attitude towards knowledge. As indicated by scholars (Francis and Hoefel, 2018; Liu *et al.*, 2019), Gen Y and Gen Z are actually enthusiastic to creating new businesses. Therefore, this study aims to fill this gap, which is also in line with other scholars' research calls (Liu *et al.*, 2019; Maloni *et al.*, 2019; Chillakuri, 2020).

The Gen Y and Gen Z have a lot in common because they are generally raised in the exponential development of digital technologies ranging from instant messaging, the internet, personal computers and so on (Seemiller and Grace, 2016). This technology allows the two cohorts to communicate in real time or expect immediate feedback that make them having a strong sense of immediacy, favouring flat organisational structure and experiencing exposure to global diversity facilitated by social media (Chicca and Shellenbarger, 2018). In the context of entrepreneurship, advances in technology and the way of communicating help foster creative and proactive minds to explore business opportunities and freedom to share and absorb ideas, information or knowledge from anywhere, anytime (Francis and Hoefel, 2018; Liu *et al.*, 2019). However, in communicating, the Gen Y prefers the texting method, whereas the Gen Z communicates through symbols, emoji, short videos and memes (Francis and Hoefel, 2018; Fromm and Read, 2018). Such different characteristics of communication and behaviour may affect the way of knowledge sharing among them and their orientation for new business creation. Following these arguments, the current study formulates two research questions. Firstly, do individual entrepreneurial orientations and attitudes towards knowledge sharing affect new venture creation among Gen Y and Gen Z? Secondly, do the effects differ between Gen Y and Gen Z?

This paper is structured as follows. Section 1 elaborates the background, research questions and objective, whereas theoretical basis and hypotheses development are in Section 2. Sections 3–5 present the research methodology, findings and result discussion. Future research avenues and implications are in Section 6.

Theoretical framework and hypothesis development

Social cognitive theory

This study uses social cognitive theory (Bandura, 1977) as a point of departure to understand the dynamic interaction between an individual, his/her behaviour and his/her environment, which explain how individual entrepreneurial orientation and attitude towards knowledge sharing relate to new venture creation. The primary underlying notion of this theory is the concept of

self-efficacy. Self-efficacy is a person's belief in his/her capabilities to organise and execute the actions needed to produce specific attainments (Bandura, 1977). Having self-efficacy allows an individual to have confidence in measuring and allocating how much effort is taken to succeed in creating new ventures by facing failures, challenges and having a growth mindset to respond to environmental uncertainty (Bandura, 1997; van Gelderen *et al.*, 2005; De Carolis and Patrick, 2006).

One of the primary sources of self-efficacy for an individual is an imitative/observational learning obtained from role models (Bandura, 1988; Schunk and DiBenedetto, 2020). The role models such as admired figures (e.g. parents, peers, co-workers and successful entrepreneurs) have social influence and verbal persuasion skills that can build self-confidence for observers learning to create new ventures (Robinson and O'Leary-Kelly, 1998; Schunk and DiBenedetto, 2020). In the context of this study, the presence of influential role models can foster individual's tendencies to be proactive, innovative, risk-lover and have a positive attitude towards knowledge-sharing activities. These proclivities enable an entrepreneurial individual to create a new venture (De Carolis and Patrick, 2006; Wang and Noe, 2010).

Concept of entrepreneurial orientation

The concept of entrepreneurial orientation developed by Miller (1983) was firstly used as an organisational level construct to determine firm performance (Basso *et al.*, 2009; Koe, 2016). This construct roots from the thoughts of Mintzberg (1973) and Miles and Snow (2003), who described strategic formulation (i.e. entrepreneurship, planning and adaptation) and strategic posture of an organisation that proactively seeks opportunities and uses an entrepreneurial approach in determining offered products or target market (Todorovic *et al.*, 2011). Furthermore, Covin and Slevin (1990) and Lumpkin and Dess (1996) operationalised the concept of entrepreneurial orientation into three main components, namely, innovativeness, proactiveness and courage to take risks. In its development, some researchers (Bolton and Lane, 2012; Koe, 2016; Rauch *et al.*, 2009) used the entrepreneurial orientation at the individual level, and it affects several consequences such as making decisions to create new businesses at the international level (Kropp *et al.*, 2008) and new business performance (Su *et al.*, 2011; Cong *et al.*, 2017).

Innovativeness is an individual proclivity to create new ideas, experiments and creative processes to produce new products/services/processes (Lumpkin and Dess, 1996). Risk taking refers to a predisposition to act boldly in risky situations although the expected returns are uncertain (Koe, 2016). Proactiveness is a tendency to take action first or lead rather than follow in initiating new products or services (Lumpkin and Dess, 1996). Creating a new venture is an individual's effort to find, create or exploit opportunities to realise goods and services needed in the future (Shane and Venkataraman, 2000).

Concept of attitude towards knowledge sharing

The notion of knowledge sharing often interchanges with knowledge transfer and knowledge exchange (van Geenhuizen and Indarti, 2005; Alavi and Leidner, 1999; Cabrera *et al.*, 2006; Geenhuizen *et al.*, 2010). For example, Alavi and Leidner (1999) equate knowledge sharing with knowledge transfer and define it as disseminating knowledge throughout the organisation. On the other hand, Wang and Noe (2010) distinguish the meaning of knowledge sharing, knowledge transfer and knowledge exchange. Knowledge transfer includes knowledge-sharing activities carried out by knowledge owners and knowledge acquisition and application by recipients. Knowledge transfer is more generally used to explain the phenomenon of knowledge movement between different units, divisions and organisations than to explain individual behaviour (Szulanski *et al.*, 2004). Knowledge exchange includes knowledge sharing (or imparting knowledge to others) and knowledge seeking (or studying other people's knowledge) by individuals (Wang and Noe,

2010). The term knowledge sharing, knowledge transfer and knowledge exchange are interchangeable in this study, which is interpreted as a person's attitude towards giving and seeking knowledge, which then has an effect on individual consequence such as the creation of new businesses. It is in line with the definition introduced by [Bock and Kim \(2002\)](#).

In terms of the media of knowledge sharing, in general, the literature on knowledge management classified facilities for sharing into two types, namely, traditional and non-traditional ([Leonardi, 2014](#)). The traditional channels are knowledge sharing media through face-to-face communication, whereas the non-traditional channels are knowledge sharing media using communication tools such as telephone, paper, facsimile, email and social media. As digital technology has developed very rapidly and because of the mobility restriction caused by the COVID-19 pandemic, media for today's knowledge sharing prefer to use video conferencing, video platforms and social media that allow a wider reach, both in synchronous and asynchronous modes ([Ahmed et al., 2019](#); [Naeem, 2019](#); [Tønnessen et al., 2021](#)).

Concept of new venture creation

A new business creation is often defined as a series of activities starting from having the intention to form a new business, acquiring the required resources, carrying out various activities within the corridor of existing law and exchanging resources with other parties ([Katz and Gartner, 1988](#)). This creation reflects a process of understanding the opportunities and producing goods or services that consumers will need in the future.

The literature on business venture creations summarises various factors that influence the creation of new businesses, which can be classified into two perspectives, namely, macro and micro perspectives ([Hindle and Al-Shanfari, 2011](#)). The macro-level focuses on exploring factors that affect the growth rate of new businesses at the industry, regional and country levels ([Hindle and Al-Shanfari, 2011](#)). At the industry level, the factors affecting the creation of new businesses such as the level of infrastructure efficiency, capital markets, incentives provided by the government and social and business environment supports ([Dubini, 1989](#)). At the regional and country levels, the antecedents of new business creation are population density, population growth rate, capital availability, unemployment rate and regional or country economic growth ([van Gelderen et al., 2005](#); [Wagner and Sternberg, 2004](#)). The micro perspective emphasises on factors that affect decision-making to create a new business at the individual level such as psychological and cognitive aspects ([Busenitz and Lau, 1996](#); [Kolvereid and Isaksen, 2006](#)) and personal aspects ([Hansen and Allen, 1992](#); [Herron and Sapienza, 1992](#); [Powell and Bimmerle, 1980](#)). In more detail, psychological and cognitive aspects are needed for achievement, internal self-control and knowledge sharing ([Baron, 2007](#); [Korunka et al., 2003](#)), whereas a proactive attitude and courage to take risks ([Kropp et al., 2008](#)), self-actualisation, and dissatisfaction with existing conditions ([Dubini, 1989](#)) are examples for personal aspects.

As the study focuses at the individual level, the psychological, cognitive and personal traits of creating a new business become relevant elements to explain the process of an individual in creating and running a new business ([Katz and Gartner, 1988](#); [Hindle and Al-Shanfari, 2011](#); [Salamzadeh, 2015](#)). In this study, the micro perspective, which covers the cognitive aspect (i.e. attitude towards knowledge sharing) and personal aspect (i.e. individual entrepreneurial orientation), is used, which will be explained in the next section.

Effect of individual entrepreneurial orientation on new venture creation

One of the crucial aspects of creating a new business is the individual's courage to decide to start a new business ([Pollack et al., 2017](#)). This courage arises because of the strong belief of an individual to succeed in spawning new ideas, agile in seeking and taking opportunities

and daring to take risks when venturing (Kolvereid and Isaksen, 2006). Based on the social cognitive theory, this self-confidence is also known as self-efficacy and comes from influential figures who serve as role models or observational learning resources for someone who sets up a business (Bandura, 1997; Brahma *et al.*, 2018; Schunk and DiBenedetto, 2020). In other words, the role models owned by someone such as parents, friends, co-workers and successful figures can model exemplary behaviours and motivates for entrepreneurial individuals to have an innovative, proactive and risk-taking proclivity to create a new business (Kropp *et al.*, 2008; Schunk and DiBenedetto, 2020).

The relationship between individual entrepreneurial orientation and new venture creation has been studied by several scholars (Donbesuur *et al.*, 2020; Wang *et al.*, 2017). Donbesuur *et al.* (2020) examined the relationship between these two variables in Ghana. They proved that a strategic entrepreneurial posture, i.e. entrepreneurial orientation is an important determinant of the creation and survival of new ventures. They also state that entrepreneurial orientation is manifested concretely by identifying market needs, introducing new products and services and exploiting new products and markets to gain economies of scale and scope (Nofiani *et al.*, 2021). Another study by Wang *et al.* (2017) conducted in Canada found that the entrepreneurial orientation is needed to ensure that new businesses established have good performance to gain legitimacy from potential investors for further development. Hence, the proposed hypothesis is:

H1a. The individual entrepreneurial orientation positively affects the new venture creation

Effect of attitude towards knowledge sharing on new venture creation

As explained earlier, the attitude towards knowledge sharing epitomises positive feelings towards the knowledge-sharing experience. Knowledge sharing refers to providing information, tasks and knowledge to assist and collaborate with others to solve problems, develop new ideas and implement policies or procedures (Tønnessen *et al.*, 2021). Following the logic of the social cognitive theory that accentuates learning by modelling, observing and imitating the figures that model and promote the knowledge sharing process allow an individual perceives this activity as something positive, worthy of imitation and finally generates high self-efficacy for himself/herself. The new business creation processes can then run smoothly because much-needed business information and knowledge can be accumulated thanks to a positive attitude towards knowledge sharing activities.

Several previous works have provided a positive relationship between attitude towards knowledge sharing and new venture creation (Eftekhari and Bogers, 2015; Solano *et al.*, 2020). In their research on start-ups in Denmark, Eftekhari and Bogers (2015) found that an open mindset to absorb knowledge from external sources and share the knowledge internally is vital for establishing and sustaining the start-ups. Entrepreneurial individuals or start-up founders who have a positive attitude towards knowledge sharing within the open innovation framework will enable start-ups to overcome their liability of newness and smallness. Meanwhile, recent work by Solano *et al.* (2020) finds that the process of sharing knowledge with clients and suppliers has a positive effect on the capability development and performance of new ventures in Spain. Thus, the current study hypothesises that:

H1b. The attitude towards knowledge sharing positively affects the new venture creation.

Comparing the effect of individual entrepreneurial orientation and attitude towards knowledge sharing on new venture creation between Gen Y and Gen Z

The Gen Y and Gen Z are known for being independent, creative, respecting diversity, technology savvy, flexible or less hierarchical and preferring flat, interactive and community-oriented structures or collaborative networks (Balda and Mora, 2012; Fromm and Read, 2018; Liu *et al.*, 2019; Okros, 2020). These characteristics fit very well with the entrepreneurial orientation dimensions that put forward the search for new ways, the initiative to do things without waiting for others, the courage to venture into the unknown without thinking much about the risks involved and the willingness to share knowledge (Liu *et al.*, 2019; Ferreira, 2020). So, based on those characteristics, the Gen Y and Gen Z are enthusiastic about creating new businesses (Francis and Hoefel, 2018; Liu *et al.*, 2019).

However, there are three main differences in the behaviour of the two-generational cohorts as described in Table 1, namely, context, ways of learning and identity building. Firstly, the context refers to globalisation, economic stability and the internet emergence are several major world events that affect the Gen Y's way of thinking and behaving while several background occurrences for the Gen Z are digital technology advancement, global recession, terrorism and most recently, COVID-19 pandemic (Francis and Hoefel, 2018; Okros, 2020).

Items	Gen Y (born in 1981–1996)	Gen Z (born in 1997-2010s)
Context	Globalization, economic stability, the emergence of the internet	The rapid advancement of digital technology, socioeconomic uncertainties such as the 2008 global recession, terrorism, natural disasters, the COVID-19 pandemic
Ways of learning	<ul style="list-style-type: none"> – Balanced learning resources between traditional role models and digital technology or still being able to distinguish between the virtual and real worlds – Span of attention is long enough that makes them still comfortable to learn by reading textbooks or listening to lectures from traditional role models such as successful entrepreneurs (asking/thinking first then doing) – Comfortable using the text method in communicating 	<ul style="list-style-type: none"> – Self-starters, self-learners, self-motivators or prefer experiential learning (doing first then asking/thinking) – Visual learners with short videos, memes and images because of their very short span of attention. Do not like listening to long lectures or reading textbooks – Interactive, electronic multi-tasker and over-reliance on Google – Live in a singularity era or study in fluid space and time or in hazy virtual and real realities, also familiar with gamified processes in virtual media – Fear of missing out (FOMO) and fear of living offline (FOLO) – Tend to be more comfortable constructing knowledge on their own instead of imitating or being instructed by others
Identity building	<ul style="list-style-type: none"> – Traditional role models still play a major role in shaping/dictating their self-efficacy and personal identity – Willingness to make a difference and contribute to the wider community as a part of their identity 	<ul style="list-style-type: none"> – Develop self-authenticity (“be your true self”) – Seek and form various digital identities on social media or “identity nomads”

Notes: Ojasaar (2015); Seemiller and Grace (2016, 2017); Baldonado (2018), Chicca and Shellenbarger (2018); Francis and Hoefel (2018), Fromm and Read (2018); Laudert (2018), Otieno and Nyambegera (2019); Gould *et al.* (2020), Okros (2020)

Table 1. Millennial generation (Gen Y) vs post-millennial generation (Gen Z)

The second difference is their ways of learning (Seemiller and Grace, 2016; Francis and Hoefel, 2018; Fromm and Read, 2018). Although both generations are technology literate and use digital technology in their lives, the two generations are pretty different in exploring something that interests them. The term “digital natives” is more likely applied to the Gen Z because of their heavy dependence on digital media and online literature (Feher, 2019; Francis and Hoefel, 2018). Compared with the Gen Y, who still has a fairly long span of attention or is comfortable listening to lectures or reading textbooks, the Gen Z tends to have a short span of attention, so they prefer to learn visually through infographics, memes and short videos (Seemiller and Grace, 2016; Chicca and Shellenbarger, 2018; Fromm and Read, 2018). Regarding the sequence of learning, the Gen Z prefers the experiential learning method or doing first then asking/thinking, whereas the Gen Y is still comfortable with the conventional method in learning or asking pieces of advice first to their role models then doing (Chicca and Shellenbarger, 2018).

Last difference is on how the two generations build identity. The term “identity nomads” is pinned to the Gen Z because they want to define themselves with one stereotype and experiment on social media to form different digital identities (Fromm and Read, 2018). This experiment is a part of the search for authenticity that they are constantly looking for because they do not want to imitate anyone or acquire an identity determined by others (Fromm and Read, 2018). In other words, the role model for the Gen Z is himself/herself; they are self-starters, self-learners and self-motivators (Otieno and Nyambegeera, 2019). In contrast, the Gen Y still tends to balance life in the real and virtual worlds (Seemiller and Grace, 2016; Howe and Strauss, 2000). They still acknowledge the influence of social relations with their peers and traditional role models (e.g. family, successful entrepreneurs, and so on) (Meola, 2016; Otieno and Nyambegeera, 2019). The Gen Y are also contributors who want to seek an active role and direct impact in the broader community by creating new businesses (Balda and Mora, 2012; Francis and Hoefel, 2018; Liu *et al.*, 2019).

According to the logic of social cognitive theory that emphasises observational/imitative learning on traditional or non-virtual influential figures (e.g. parents, successful entrepreneurs), the influences of individual entrepreneurial orientation and attitude towards knowledge sharing on the new venture creation are considered to be stronger for the Gen Y than the Gen Z. Hence, we propose the following hypotheses.

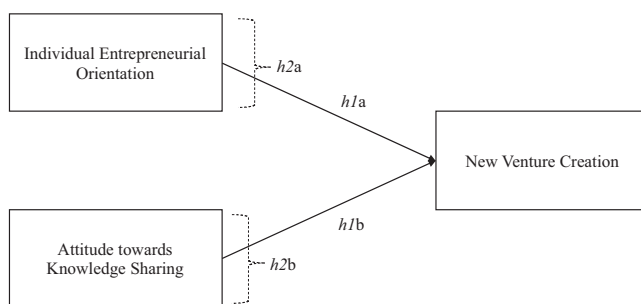
- H2a.* The effect of individual entrepreneurial orientation on the new venture creation for the Gen Y is higher than the Gen Z.
- H2b.* The effect of attitude towards knowledge sharing on the new venture creation for the Gen Y is higher than the Gen Z.

All the hypotheses are depicted in [Figure 1](#).

Research methodology

Research approach, strategy to select respondent and data collection method

This study adopts a hypothetic-deductive approach to answer the research questions. We surveyed with a structured questionnaire for respondents in Yogyakarta, Indonesia, using a purposive sampling technique, i.e. the millennial generation/Gen Y (born in 1981–1996) and post-millennial generation/Gen Z (born in 1996–2010) (Dimock, 2018). Yogyakarta was selected to be the research site because the province of Yogyakarta is considered as a miniature of Indonesia, which represents the demographic profile of Indonesian in terms of ethnic groups, e.g. Javanese, Batak, Malay, Minang and Sundanese (BPS, 2021). In addition, Yogyakarta is also known as a student city where many young people from various regions



Source: All generations, Gen Y, and Gen Z

Figure 1.
Research model

in Indonesia come and study. Questionnaires was distributed with the help of well-trained enumerators by visiting the respondents. The enumerator explains the procedure for filling out the questionnaire and waits until the respondent completes it. Out of 300 questionnaires (distributed in January 2020), 238 respondents were completed the survey and valid for further analysis, make the response rate is 80.67%, considered high for individual level studies (Baruch and Holtom, 2008). It indicates a good data collection process.

Measurements and data analysis method

Table 2 consists of variables used in this study, including operational definition, indicator, loading score and Cronbach's alpha. All the variables were measured using a scale adapted from previous studies. The scales were back-translated from English to Indonesian by an expert scholar familiar with the subject. The back-translation method is crucial to ensure the survey's correct wording and conceptual accuracy (Brislin, 1970). The measurement for new venture creation (six items) was adopted from Gatewood *et al.* (1995). The individual entrepreneurial orientation consists of 10 items from Bolton and Lane (2012). The attitude towards knowledge sharing was measured using four items from Bock and Kim (2002). The score of factor loading > 0.40 for all items and Cronbach's alpha score > 0.60 for all variables indicate that the measurements are valid and reliable (Hair *et al.*, 2014; Sekaran and Bougie, 2013). The regression analysis is used to test the first hypotheses; the Wald test is applied for the second one; and the independent *t*-test for additional analysis by using software for statistics and data science (Stata).

Profile and descriptive statistics

Table 3 shows the population of this study has a reasonably balanced ratio between females and males, with the majority of education level is a university for both generations ($> 80\%$). Most of the Gen Z respondents in this study are unmarried (97 %), whereas 43% of the Gen Y are married. The majority of the Gen Z in this study are students (88 %), and the Gen Y are primarily already working in the private sector (63 %). The majority of ethnic for both generations is Java, and the rest ethnics spread almost evenly in the Gen Y while the Gen Z put Batak and Malay ethnics in the second and third places.

Table 4 summarises correlations among variables in the study. The coefficient of correlation between individual entrepreneurial orientation and attitude towards knowledge sharing is found to be high ($r = 0.506$; $p < 0.001$). We further deployed a multicollinearity test and found that the value of variance inflation factor is 1, indicating no critical multicollinearity issue in our data (Hair *et al.*, 2014).

Variables (operational definition)	Items ^a	Sources	Loading factor ^b	Cronbach's alpha
New venture creation is the process of gathering information to form a new business, estimating the potential profits to be obtained, preparing for production, marketing and financial administration and operating it (Katz and Gartner, 1988)	1. Gathering market information to initiate business such as: potential customers, suppliers of raw materials and competitors	Gatewood <i>et al.</i> (1995)	0.747	0.902
	2. Estimating a potential profit like: calculating capital for production, selling price and potential income		0.793	
	3. Preparing for production such as: learning how to produce, providing services to customers and determining the location of production		0.795	
	4. Preparing for marketing goods services like: setting prices, planning promotion and entering the business network		0.814	
	5. Preparing for financial administration and business such as: formatting income record, income and meeting the legal requirements		0.834	
	6. Operating a business such as: purchasing of raw materials and supporting materials, manufacturing and distributing, marketing goods/services		0.811	
Individual entrepreneurial orientation is defined as an individual attitude in the form of courage to take risks, to be innovative and to be proactive in creating new businesses (Wu, 2009)	1. I like to take courageous actions and do challenging new things	Bolton and Lane (2012)	0.696	0.945
	2. I am willing to invest a lot of time and money to generate high returns		0.710	
	3. I tend to be more courageous when I am in highly risky situations		0.747	
	4. I love trying new, unusual activities, whether they are risky or not		0.871	
	5. In general, I prefer to be involved in unique and new activities that use better ways than referring to previous methods that have been proven correct		0.662	
	6. I prefer to try my own way when learning new things rather than imitating others		0.810	
	7. I prefer to start trying and using a new way to solve a problem rather than using the same method generally used by other people		0.836	
	8. I usually act in anticipation of problems, needs or changes in the future		0.882	
	9. I tend to do planning for the activities that I will do		0.842	

Table 2.
Measurements of variables

(continued)

Variables (operational definition)	Items ^a	Sources	Loading factor ^b	Cronbach's alpha	Entrepreneurial orientation
Attitude towards Knowledge Sharing is the level of positive feelings towards knowledge sharing experiences (Bock and Kim, 2002)	10. I prefer to be active in solving problems than just sitting and waiting for people others to do it		0.819		<hr/>
	1. I have a good impression of sharing knowledge	Bock and Kim (2002)	0.748	0.887	
	2. Sharing knowledge is fun for me		0.798		
	3. Sharing knowledge means a lot to me		0.846		
	4. Sharing knowledge is a wise act		0.733		

Notes: ^afive-point Likert scale (1 = strongly disagree; 5 = strongly agree); ^bfactor loading is significant at < 0.05 and valid at ≥ 0.4 (Hair *et al.*, 2014)

Table 2.

Demographic characteristics	Gen Y (N = 84)	Gen Z (N = 154)
<i>Gender</i>		
Male	42 (50%)	76 (49.4%)
Female	42 (50%)	78 (50.6%)
<i>Level of education</i>		
Senior high school	13 (15.5%)	19 (12.3%)
University	71 (84.5%)	135 (87.7%)
<i>Marital status</i>		
Married	36 (42.9%)	4 (2.6%)
Not married	48 (57.1%)	150 (97.4%)
<i>Work status</i>		
Students	14 (16.7%)	136 (88.3%)
Teacher	11 (13.1%)	2 (1.3%)
Private employee	53 (63.1%)	13 (8.4%)
Government employee (non-teacher)	1 (1.2%)	0 (0%)
Non-government offices	5 (6%)	3 (1.9%)
<i>Ethnicity (in alphabetical order)</i>		
Arab	1 (1.2%)	1 (0.6%)
Bali	0 (0%)	1 (0.6%)
Banjar	0 (0%)	1 (0.6%)
Batak	4 (4.8%)	22 (14.3%)
Bugis	1 (1.2%)	3 (1.9%)
Dayak	0 (0%)	2 (1.3%)
Java	66 (78.6%)	90 (58.4%)
Madura	0 (0%)	1 (0.6%)
Malay	2 (2.4%)	16 (10.4%)
Minang	3 (3.6%)	6 (3.9%)
Sunda	4 (4.8%)	4 (2.6%)
Chinese	1 (1.2%)	0 (0%)
Not answer	2 (2.4%)	7 (4.5%)

Table 3.
Demographic distribution

Results and discussion

Table 5 presents the results of hypotheses testing. The individual entrepreneurial orientation and attitude towards knowledge sharing have a significant positive effect on creating a new venture ($\beta = 0.331, p < 0.001$; $\beta = 0.219, p < 0.05$), respectively. Thus, the *H1a* and *H1b* are supported. In the context of this study, individuals who have high entrepreneurial orientation (i.e. innovativeness, proactiveness and risk-taking) and a positive attitude towards knowledge-sharing activities are more likely to establish a new business. These findings are also consistent with previous studies (Koe, 2016; Bolton and Lane, 2012; Donbesuur *et al.*, 2020). Consequently, the entrepreneurial orientation and attitude towards knowledge sharing need to be cultivated seriously by universities and various educational institutions so that they are able to initiate and create a new venture. This cultivation process can be done by involving various relevant role models for each generational cohort with an appropriate approach.

The next finding is comparing the two generations by conducting the Wald test (beta coefficient) and shows no difference in contrast (β Gen Y – β Gen Z = 0.268) in the influence of individual entrepreneurial orientation on new venture creation. The finding indicates that both the Gen Y and Gen Z still perceive entrepreneurial orientation as an essential aspect for creating new businesses, even though there is a slightly different degree for the two generations. The beta value for the Gen Y ($\beta = 0.501$) is significantly higher than that for the Gen Z ($\beta = 0.232$). This means that the source of self-efficacy for entrepreneurial orientation in creating new businesses is still strongly influenced by traditional or non-virtual figures (e.g. successful entrepreneurs, influential co-workers and so on) as the characteristics of the Gen Y learning styles. However, the absence of these extreme “black and white” differences opens for a new discourse that sources of self-efficacy for growing innovativeness, proactiveness, and risk taking can also be obtained in the style of the Gen Z, namely, from the process of gamification in the virtual world or fictional figures such as game or anime characters (Francis and Hoefel, 2018; Fromm and Read, 2018). Thus, the *H2a* is rejected.

Another finding that needs to be noted is that attitude towards knowledge sharing on the new venture creation is also perceived as a significant aspect by the Gen Y (significant beta

Table 4.
Correlation matrix

Variables	Mean	SD	Correlation		
			(1)	(2)	(3)
(1) New venture creation (DV)	3.305	0.830	1	0.343	0.289*
(2) Individual entrepreneurial orientation (IV)	3.779	0.664		1	0.506*
(3) Attitude towards knowledge sharing (IV)	4.194	0.599			1

Note: * $p < 0.001$

Table 5.
Results of hypothesis testing

Variables	All (N = 238)	Gen Y (N = 84)	Gen Z (N = 154)	Coef. Test
DV: new venture creation				
Individual entrepreneurial orientation	0.331***	0.501***	0.232*	0.268
Attitude towards knowledge sharing	0.219**	0.339**	0.15	0.189

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.001$

value) but not for the Gen Z (insignificant beta value). In conclusion, the Gen Y still perceives the importance of knowledge sharing with their community as well as proves their strong desire to contribute to others. The Gen Y also argues that sharing knowledge with others or acquiring knowledge from traditional role models is essential in creating new businesses. This finding also follows the characteristics of the two-generational cohorts in Table 1, where the Gen Z is more individual and relies on themselves as the role model. However, the comparison effect of attitude towards knowledge sharing on new venture creation for the two generations is also considered not to be significantly different (β Gen Y – β Gen Z = 0.189), giving rejection for the *H2b*.

Our descriptive data on the profile of learning and knowledge sharing from the Gen Y and Gen Z in this study (Table 6) may support the findings. Social media and friends are the most dominant business knowledge sources for the two generations. Regarding the media of knowledge sharing, the number of Gen Z that uses social media instead of other media (78 %) is higher than that of the Gen Y. The frequency of gadget usage (often and very often) for Gen Z is higher (88.3%) than that of the Gen Y, confirming the status of Gen Z as a digital native and their deep immersion in social media. In terms of the learning aspect, there is little difference in learning new things. Although reading is essential, the Gen Z also chooses observation and practising as their learning methods. In addition, the two generations show a slight difference in choosing business influencers. The Gen Y still refers to family (51 %) and friends (24%) as the leading influencers, whereas the Gen Z also chose family (44 %) and friends (30 %) with a lower percentage than the Gen Y.

This comparison supports our hypothesis test. The two generations are slightly different in several ways, i.e. choosing new ways of learning (the Gen Z also chooses observation and practising), choosing their learning resources (the Gen Y is fairer in choosing among their sources) and the Gen Z dominances over social media. These findings strengthen the argument that the Gen Z is more independent and more “mute” to their surroundings than the Gen Y. As the technological changes still rapidly emerged and the drastic change of society order caused by the COVID-19 pandemic, we believe that the differences of the two-generational cohorts are still continuous and will be eventually polarised extremely.

In addition to the hypotheses testing, this study also undertook a deeper analysis using an independent sample *t*-test on specific characteristics of the Gen Y and the Gen Z that differentiate the degree of new venture creation (NVC). The characteristics include digital literacy, training attendance on venture creation and experience in running the business. The *t*-test consists of two consecutive tests: between-group (test NVC perception between Gen Y and Gen Z) and within-group test (test variation detail of the NVC in both groups). The classification for segregation within these characteristics can be found in the Notes 2 and 3 in Table 6.

As shown in Table 7, the result of *t*-test between-groups shows no significant difference between the Gen Y and the Gen Z in their perception about new venture creation, whether in digital literacy (high and low), attendance of training (had and had not) and experience in running a business (had and had not). The result confirms that both generations seem similar in their perception of a new venture creation. Similarly, the within-group test results also show no significant differences in the mean score of new venture creation for the Gen Y who has low digital literacy (mean = 3.022) and for the high one (mean = 3.367) as well as for the Gen Z who has low digital literacy (mean = 3.324) and for the high one (mean = 3.292) (Table 8).

In the aspect of the exposure of training program, we found significant differences in the new venture creation perception for groups running a business for the Gen Y (had not: mean = 3.147 vs had: mean = 3.539) and the Gen Z (had: mean = 3.562 vs had not: mean = 3.106).

Characteristics	Gen Y (N = 84)	Gen Z (N = 154)	Characteristics	Gen Y (N = 84)	Gen Z (N = 154)
Ways of learning			Media usage		
<i>Source of business knowledge^a</i>			<i>Media used for knowledge sharing^a</i>		
Family	17 (15.2%)	32 (16.9%)	Print out (newspaper, magazine, etc.)	7 (8.4%)	10 (7.8%)
Relatives	11 (9.8%)	10 (5.3%)	Social media (FB, Twitter, etc.)	45 (54.2%)	78 (60.5%)
Friend	22 (19.6%)	41 (21.7%)	Internet media	27 (32.5%)	32 (24.8%)
Businessman	11 (9.8%)	22 (11.6%)	Electronic media (radio, TV, etc.)	4 (4.8%)	7 (5.4%)
Religious community	0 (0%)	5 (2.6%)	Word-of-mouth	0 (0%)	2 (1.6%)
Social media	30 (25.9%)	52 (24.9%)	Baseline	83	129
Website/blog	13 (11.6%)	7 (3.7%)	<i>Frequency to use gadget and the internet^{b,d}</i>		
School	8 (7.1%)	20 (10.6%)	Very often	24 (28.6%)	49 (31.8%)
Baseline	112	189	Often	45 (53.6%)	87 (56.5%)
<i>How to understand a new thing^a</i>			Sometimes	12 (14.3%)	11 (7.1%)
By reading	61 (72.6%)	109 (70.8%)	Rare	3 (3.6%)	5 (3.2%)
By listening	27 (32.1%)	68 (44.2%)	Never	0 (0%)	2 (1.3%)
By observing	24 (28.6%)	62 (40.3%)	Previous experience related to business		
By practising	30 (35.7%)	56 (36.4%)	<i>Running a new venture^{c,d}</i>		
Others (e.g. search more info, exercise)	1 (1.2%)	2 (1.3%)	Had	54 (64.3%)	84 (54.5%)
Baseline	143	297	Had not/not yet	30 (35.7%)	70 (45.5%)
<i>Person you share knowledge^a</i>			<i>Attend training on new venture^{c,d}</i>		
Family	19 (21.3%)	37 (24.2%)	Had	50 (59.5%)	90 (58.4%)
Friend	40 (44.9%)	68 (44.4%)	Had not/not yet	34 (40.5%)	64 (41.6%)
Social environment	19 (21.3%)	35 (22.9%)			
General people	10 (11.2%)	12 (7.8%)			
Others (e.g. customer)	1 (1.1%)	1 (0.7%)			
Baseline	89	153			
<i>Your business influencer^a</i>					
Family	36 (50.7%)	49 (43.8%)			
Friend	17 (23.9%)	34 (30.4%)			
Social community	10 (14.1%)	14 (12.5%)			
Religious community	0 (0%)	1 (0.9%)			
School	1 (1.4%)	3 (2.7%)			
Others (e.g. social media, business partner)	7 (9.9%)	11 (9.8%)			
Baseline	71	112			

Table 6. Ways of learning and knowledge sharing media of the two generations

Notes: ^amultiple answer is allowed; ^bthe frequency to use gadget becomes a representative of some level of digital literacy. They are grouped “very often” and “often” as high digital literacy because of the high use of gadget. The rest is “sometimes,” “rare” and “never” go to the low digital literacy; ^ctry doing business and attend business training were classified into two: had run a business/had attend training and had not.; and ^dfurther comparison test between the Gen Y and the Gen Z using these classifications, i.e. digital literacy, try doing business and training about doing a business

The training attendance also showed a similar pattern in group differences in their venture creation, i.e. the Gen Y (had: mean = 2.944 vs had not: mean = 3.506) and the Gen Z (had: mean = 3.012 vs had not: mean = 3.53). Further elaboration reveals that both the Gen Y and the Gen Z who had attended the training program have a higher perception of new venture creation. In contrast, with respect to the experience in running the business, the higher new venture creation in the running business group comes to those who had not run the business also in both generation groups. This finding makes sense because of the high adventurous or experimenting nature of both generations so that when simply continuing their old business experience it makes them less enthusiastic (Liu *et al.*, 2019; Ferreira, 2020).

The findings on the way Gen Y and Gen Z perceive a new venture creation shows similar pattern and confirms the previous studies (Francis and Hoefel, 2018; Feher, 2019), which underline that the two is the digital generations who have an adequate level of technology literacy and use digital technology daily. Consequently, they both tend to have higher expectations of venture creation when they attend the training and decrease expectations when running their own business. Nonetheless, our regression result infers that how they imply their experience and share among their peers could lead to some degree of difference. Thus, we can argue that the Gen Y and Gen Z are similar yet not fully identical.

Characteristics	Groups	Mean-0 ^b	Mean-1 ^c	M(1)–M(0)	n(0) ^b	n(1) ^c
Digital literacy	High	3.367	3.292	–0.075	33	205
	Low	3.447	3.767	0.302	15 ^d	69 ^d
Attend training about business creation	Had	3.789	3.823	0.023	18	136
	Had not	3.729	3.853	–0.041	140	98
Running a business	Had	3.646	3.803	0.026	50	34
	Had not	3.776	3.880	0.067	90	64

Table 7. Comparison of new venture creation between Gen Y and Gen Z

Notes: ^aone-tailed test. Baseline data 238, consisting of 84 Gen Y and 154 Gen Z; ^b(Mean-0) = overall mean score Gen Y; n(0) = baseline samples of Gen Y; ^c(Mean-1) = overall mean score Gen Z; n(1) = baseline samples of Gen Z; ^dbecause of lesser data in low digital literacy, $n < 30$ (n(0) = 15), the non-parametric Mann–Whitney test was used, which resulted in similar conclusion (no significant difference)

Characteristics	Groups	Mean-0 ^b	Mean-1 ^c	M(1)–M(0)	n(0) ^e	n(1) ^e
Digital literacy	Gen Y	3.022	3.367	0.345 ^d	15 ^f	69
	Gen Z	3.324	3.292	–0.032 ^d	18 ^f	136
Attend training about business creation	Gen Y	3.147	3.539	0.393 *	50	34
	Gen Z	3.106	3.562	0.457 **	90	64
Running a business	Gen Y	3.506	2.944	–0.562 **	54	30
	Gen Z	3.532	3.012	–0.52 **	84	70

Table 8. Comparison of new venture creation within the group of Gen Y and Gen Z

Notes: ^aone-tailed test; * $p < 0.05$, ** $p < 0.001$. Baseline data 238, consisting of 84 Gen Y and 154 Gen Z; ^b(Mean-0) = overall mean score new venture creation for low literacy, had not attend training, and had not run a business; ^c(Mean-1) = overall mean score new venture creation for high literacy, had attend training, and had run a business; ^d0.345 = 3.367 – 3.022 (mean high literacy Gen Y – mean low literacy Gen Y); –0.032 = 3.292 – 3.324 (mean high literacy Gen Z – mean low literacy Gen Z). Similar method applies to training and run a business; ^en(0) = baseline samples of low literacy, had not attend training, and had not run a business; ^fn(1) = baseline samples of high literacy, had attend training, and had run a business; ^gbecause of lesser data in low digital literacy, $n(0) < 30$ (Gen Y = 15 and Gen Z = 18), the non-parametric Mann–Whitney test was used, which resulted in similar conclusion (no significant difference)

Conclusion, limitation and future research agenda

Based on the research call from several works to further explore the Gen Y and Gen Z (Liu *et al.*, 2019; Maloni *et al.*, 2019; Chillakuri, 2020), this study contributes to elaborate how they learn or share knowledge. In term of theoretical discourse, it is vital to note that the social cognitive theory was established at the time of the advent of television (Bandura, 1977). In other words, in that era, sources of self-efficacy for entrepreneurial individuals to foster positive experiences of knowledge sharing are mostly from the traditional or non-virtual role models such as parents, successful entrepreneurs, etc. However, the emergence of the digital or singularity era (blurred boundary between the real world and the virtual world) makes these traditional sources of efficacy not entirely relevant for the digital generation that highly idolises artificial characters in the cyberspace through games and anime or cartoons armed by the augmented reality. Thus, social cognitive theory needs to be expanded in various upcoming studies to further investigate the attitude and behaviours of the Gen Y, Gen Z and even Gen Alpha (born in 2010s–till now) (Smith, 2021) as the emerging generations. The works of Feher (2019) and Schunk and DiBenedetto (2020) could be the point of departure for the development of the “extended” social cognitive theory. In addition, radical changes in the macro-environmental situation affected by the COVID-19 pandemic hastened the transition to a fully digital era. The pattern of sharing code or narration really changes from physical/face-to-face to completely based on virtual codes. The meaning of the cognitive system has changed completely. The process of forming tacit knowledge in this completely virtual era can also become a promising research theme.

The development of entrepreneurship education in various universities can consider these generational differences to achieve learning effectiveness. Bringing in successful entrepreneurs to provide entrepreneurial motivation may be more suitable for the Gen Y (asking/thinking first, then doing) but not for the Gen Z. This last-mentioned generation prefers to directly practice creating a new venture and learn independently from various digital sources (doing first, then thinking/asking) and seeking their own identity as an entrepreneur without being dictated by other figures or aspiring to become an authentic entrepreneur. In other words, the policy makers in universities need to redesign immediately their entrepreneurship education curriculum by facilitating experiential learning more aggressively such as specialised training program on new venture creation, venture capital support and market networks. To highlight, the function of educators for the Gen Z is only as a facilitator or “friend” of learning and connector of resources in the university’s entrepreneurial ecosystem. Some emerging organisational and entrepreneurial concepts such as authentic entrepreneurship, authentic leadership and organisational coolness are essential to explore in the future to better prepare the Gen Z as entrepreneur and the next generation of leaders (Baldonado, 2018; Guillotin and Mangematin, 2018; Laudert, 2018; Aadland and Aabo, 2020; Wolverson *et al.*, 2021).

As a limitation, we undertook this research in Indonesia with a collectivist culture (Hofstede, 2011). The following similar research works can be carried out in other countries with different cultures to obtain generalisability while at the same time answering research calls from some scholars (Gentilviso and Aikat, 2020; Thangavel *et al.*, 2021). In addition, the unfolding COVID-19 pandemic seems will radically change society or mainly accelerate and sharpen the disparity between the forthcoming generations (Bhattacharyya and Thakre, 2021; Nicola *et al.*, 2020; Smith, 2021). Nonetheless, this study has not explored the Gen Y’s attitude and behavioural changes in terms of their entrepreneurial orientation and knowledge sharing caused by the pandemic. Exploring these changes through qualitative approaches such as in-depth interviews or ethnography may provide new enlightening insights.

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