

# DIFFERENTIAL DIAGNOSIS OF DIGITAL CULTURE IN STARTUP VS NON-STARTUP COMPANIES IN INDONESIA TO DRIVE EMPLOYEE ENGAGEMENT AND DIGITAL MATURITY

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**Abstract.** Digital transformation is not an easy task to do and many argues that digital culture is one of the many factors contributing to its success. Culture could lead the transformation by collaborating the whole organization towards its mutual vision and therefore could influence the employee engagement. Objective: This study assesses digital culture's role in driving employee engagement and digital maturity when transformation intervention implemented in the organization, specifically in the start-up and non start-ups company in Indonesia. This exploration is intended for managers and leaders to understand the digital culture differences in both group of companies and to determine which opportunities they may need to improve and strengthen the company's employee engagement and digital maturity. Methodology: The combination of Capgemini's digital culture model, Gallup Q12's employee engagement model and Gill & VanBoskirk's digital maturity model are used in measuring the start-ups and non start-ups. Result: The digital culture score in the start-ups company was higher than in the non start-ups, consistently in all dimensions, with corresponding higher employee engagement as well as digital maturity. Conclusion: This study suggest that the start-ups have a more developed digital culture than the non start-ups. Further research is suggested to find out which dimension of digital culture that would cause a corresponding higher employee engagement and digital maturity. It would be beneficial if the similar study is carried out in a different country so that the comparison of the start-ups culture could be analysed and learned.

**Keywords:** digital transformation; digital culture; employee engagement; digital maturity

## I. INTRODUCTION

Facing to new technological advances, organization needs to prepare their workforce in supporting the transformation. Organization transformation not only considers efficiencies and cost-savings that mainly resulted from the technologies, but organization culture that plays significant role in helping the growth of an organisation. Culture is an important factor of intangible assets of a company, in addition to other intangible assets such as brands, intellectual property, research & development which are competitive advantage (McKinsey [1]). In addition, according to the Capgemini Consultation, cultural factors play a role as the number one hurdle in digital transformation (Buvat [2]). A digital culture exists where organizations promote and support the use of technology to get work done in the most effective and efficient way (Singh & Atwal [3]). Start-ups company clearly have a strong advantage in this competitive environment, as they turn the innovation and adoption of new technologies is a key aspect for any Start-Ups company (Méndez, Andreu, & Tirador, [4]). However, for a well-established company such as manufacturing, retail and banking; Start-Ups company's practices may seem different. The non start-ups company have their own culture that allows them to survive as long as they have and when they develop digital culture, traditional values such as integrity and stability, may still exist as the core values (McKendrick [5]). So, how successful a

company to drive changes with digital culture can be seen by their digital maturity levels (Resnick [6])

As the transformation of the organization is taking place, it is necessary to have an engaged work force (Buhler [7]). The complexity of present business makes the employers continue to focus on improving employee engagement. A study shows a high level of engagement for employees who are involved in organization's digital environment. Digital transformation to improve operational efficiency significantly has effect on employee engagement with the organization (Goswami & Upadhyay [8]). At the end, final result of a strong employee engagement strategy is the complete transformation of not only the organization, but also of the persons who are acting as the stakeholders within the organization (Li [9]).

Based on the above points, there are three things that become the main focus of this research, as follows:

1. How different is the Digital Culture in start-ups company and non-start-ups company in Indonesia?
2. How is the impact of Digital Culture in start-ups company and non-start-ups company towards their Employee Engagement?
3. How is the impact of Digital Culture in start-ups company and non-start-ups company towards their Digital Maturity?

In accordance with the research focus, the scope of this study was to investigate the digital culture in the start-

ups and non start-ups company. Start-ups company that will be used as research objects are Indonesian start-ups company that have become "Unicorns" in 2020 or have a valuation value of over 1 billion US dollars or equivalent to IDR 14.1 trillion (Kamalia [10]). Meanwhile, the non-start-ups company that will be selected are from state-owned-enterprise and private companies in Jakarta.

The importance of this study mainly lies in the results of the research obtained which is a description of digital culture in start-ups company and non-start-ups company, and its impact to employee engagement and digital maturity. From the result of this study, researcher aspire to contribute to the audience especially the company managers to gather the useful learning and apply them in designing and implementing various strategic and practical steps to strengthen digital culture in the organization.

A synthesis and valuation of the literature is done in this section. Aspects that are addressed include definition of Digital Culture, Employee Engagement, Digital Maturity, and Start-ups Company.

Professor Ethan Bernstein of Harvard Business School says that 'Culture is the glue that either keeps us doing things well or keeps us doing things poorly'. In other words, a corporate culture is the integration of values and experiences of the employees as well as the mission and vision of an organization (Singh & Atwal [3]). Culture is the shared norms, practices, values, and expectations of a set of human beings. BCG mentions that culture comprises the value and characteristic set of behaviours that define how things get done in an organization. A healthy culture provides the guidelines that steer individuals to act appropriately and make choices that advance the organization's goals and strategy (Hemerling [11]). BCG believes that by ignoring culture, an organisation risks transformation failure, and with the right digital culture, an organization could attract talents and at the same time empowers people to deliver results faster. They also mention that there is no standard digital culture, but there are five defining elements:

1. It promotes an external, rather than internal orientation
2. It prizes delegation over control
3. It encourages boldness over caution
4. It emphasizes more action and less planning
5. Its values collaboration more than individual effort

Digital culture is an expression of norms, values and expected ways of doing things due to ever-increasing computerization and digitalization of society (Sadiku, Tembely, & Musa [12]). Sadiku also suggested that there are seven characteristics of digital culture, namely digital literacy, permanence, copiability, instantaneousness, interconnectivity, identity, and multitasking.

Capgemini defines digital culture as a set of seven attributes: Innovation, Data-driven decision making, Collaboration, Open culture, Digital first mindset, Agility and flexibility, Customer centricity. Capgemini argues if culture is a roadblock or a catalyst for digital transformation. In their 2017's survey to the 1700 people in the 340 organizations, revealed that around 62% of the respondents

think that cultural issues are the biggest hurdles to digital transformation (Buvat [2]).

According Gallup Organization, USA (GMJ [13]), the engaged employee is someone who is 100 percent psychologically committed to their role. Employee engagement is a multidimensional construct, emotionally, cognitively or physically engaged. There is a general belief that there is a connection between employee engagement and business results (Harter JK [14]). According to Joo and Mclean [15], engaged employees are strong organizational assets for sustained competitive advantage, as well as a strategic asset, therefore employees should be engaged on a continuous basis. Gallup's research shows that more highly engaged employees give more discretionary effort at work and have higher productivity, profitability and customer service, as well as reduced turnover and safety incidents. The Gallup Q12 Index of employee engagement able to identify 12 main elements engagement or what is known as Q12, which are very strongly connected to the company's or business output. The relationships in each question are described in the Gallup Engagement Hierarchy as follows:



Figure 1. Gallup Engagement Hierarchy and Q12 (Gallup, 1992–1999 [12])

The Gallup study demonstrates the first 6 elements in questions 1 to 6, which are basic needs and management support, which underlie satisfaction, performance, and retention. The next six elements that appear in questions 7 to 12 describe teamwork and employee development within the company. There are three types of employees based on Gallup employee engagement, as follows Engaged, Not Engaged, Actively Disengaged. Factors that contribute to an employee's level of engagement are specific or variable for each individual. It then becomes imperative for leaders to determine which organizational factors contribute to employee engagement and to strengthen these factors, both at individual and group level (Harter JK [14]).

Digital maturity is associated to what degree companies ready in doing digital transformation or how changes in digital is prepared and conformed by an organization (Salviotti, Gaur, & and Pennarola [16]). In a straightforward way, Chanias and Hess have narrated that digital maturity is where the company stands in a digital transformation (Chanias & Hess [17]). Ramantoko investigated the maturity of digital transformation of small medium enterprises (SME) in Indonesia among three

traditional communities by conducting a qualitative research methodology and concluded that the maturity index is between 2 and 3 from the maximum level of 4. Rahayu and Day explored the e-commerce adoption in SME in Indonesia where they concluded that the adoption in developing nations, including Indonesia, lagged far behind the developed ones (Rahayu & Day [18]).

Berghaus and Back have built a digital maturity model that comprises of nine dimensions; Strategy, Organization Product Innovation, Customer Experience, Culture and Expertise, Transformation Management, Process Digitization, Collaboration, and Information Technology (Berghaus & Back [19]). Gill and VanBoskirk also developed a model to measure digital maturity named Digital Maturity Model 4.0 that was built upon four dimensions, organization, insights, technology and culture. They then clustered the results into four segments with its behavior and strategy (Gill & VanBoskirk [20]). To serve the study's objective, the researcher will use the Gill and VanBoskirk model due to its simplicity, including to incorporate the four segments of its digital maturity level model: skeptics, adopters, collaborators and differentiator.

Digital culture explains that technology and the internet are responsible for how we interact, behave, think and communicate as humans in society (Arnault [21]). By using digital culture in the company, it can help change the company's paradigm towards a mindset that works effectively (Capgemini [22]). Therefore, culture in organizations is one of the most important things in digital transformation. A study shows that the level of success of companies in carrying out digital transformation is driven by digital culture and the existence of a digital maturity level (Clarke [23]).

Another study showed a relationship between organizational culture and employee engagement by becoming enablers and inhibitors in Saudi banks. In addition, the State of American Workplace Report explained that the existence of corporate culture can affect employee engagement (Alshehri [24]). Li and his colleagues in their research also found that organizations with strong digital employee engagement can conquer the market more easily than other organizations because they have good expertise in the latest technology, effective decision-making practices (Li [9]). Thus, it can be seen that digital culture can drive the digital transformation of a company and has something to do with the level of digital maturity of the company, besides that it can also affect the level of employee engagement.

Start-ups are currently an important element of the nation's economy, starting from SMEs that are accelerated with an online marketplace. In addition, there are many other sectors that have been successfully helped through the start-ups technology. Indonesia ranks number five in the world with the highest number of start-ups, namely 2,193 in 2019, after the United States, India, United Kingdom, and Canada (Muslim [25])

These start-ups are affecting the career preferences of modern-day job seekers, it is highly attributed to work environment that these new-age corporations incorporate

within themselves. Start-ups company is the organization in its earlier phase. This kind of organization has some characteristics; those characteristics are classified into characteristics into 4 dimensions as follows:

Table 1. Dimensions and Characteristics of Start-Ups Company in Indonesia (Nurchayo [26])

Dimension	Characteristic
Organization (the character of the start-ups organization)	Small scale organization Young age Homogeny environment Informal structure Few differentiation Centralized
Ownership (characteristics of owner, decision making, and supervision)	Owner-manager Intuitive decision making Direct supervision
Strategy & Innovation	Niche marketing strategy Prefer risky decision than the secure one Fast innovation First mover or second mover Lack of product research
Financial	Funding from personal savings or from relative

## II. RESEARCH METHODS

The purpose of this research is to describe the different diagnosis of digital culture with respect to driving employee engagement and digital maturity, in the start-ups company versus the non start-ups company in Indonesia. In order to do that, the researcher employed an empirical research and drew on a localised survey based on the digital culture of Capgemini (Buvat [2]), the Gallup q12 Workplace Audit (GWA)'s employee engagement model and Gill and VanBoskirk's digital maturity model.

The questionnaire consisted of four parts. The first part of the questionnaire was about demographic questions, such as type of industry, firm size, age and education. The second, third and the last part of questionnaire were intended to acquire understanding on how well the company's experience the digital culture, employee engagement and digital maturity respectively, by asking the respondents with a five-step Likert-scale, ranging from "1 – not at all" to "5 – completely".

### Sampling method

There are around 2,193 (Muslim [25]) start-ups company and approx. 18,000 non start-ups company in Jakarta during this COVID-19 situation (Maskur [27]). Since the researcher wanted to obtain some "quick" information and get a "feel" for the phenomenon of the impact of digital maturity to the employee engagement and digital maturity in both start-ups and non start-ups company, then a convenience sampling was used for this purpose (Sekaran & Bougie [28]). For start-up company, the researcher targeted to survey 50 employees in "Unicorn" start-up company and another 50 respondents in non start-ups company in Indonesia, mainly employees from state-owned-enterprise and private companies in Jakarta. The respondents were targeted to be in a senior management position, e.g., C-level



and one-level down, to ensure that they can assess the different aspects of their companies.

**Operationalisation Variable**

In this study, the Capgemini’s framework was used in evaluating digital culture, that consists of seven variables with the corresponding indicators, as shown in Figure 3 (Buvat [2]). As for the employee engagement, Gallup’s Q12 was used in order to measure digital maturity of companies, and the Gill and VanBoskirk’s model that consists of four variables. In their study, Gill and VanBoskirk have suggested 7 indicators for each variable, which two of them were selected and used for simplification purposes.

**Data Analysis**

For data analysis, the researcher would calculate and compare the score from the three variables, namely digital culture, employee engagement and digital maturity. The score here was initiated as the average score of each variable for each respondent, which then averaged for the total respondents within each group, start-ups company and non start-ups company. First, the researcher would analyse the digital culture by comparing the average score of digital culture from all respondents in start-ups company to the average score from all respondents in non start-ups company. The higher the score, it would be assumed that the better digital culture the company has. Further, the researcher would analyse what specifically among the seven attributes of digital culture that differentiate the start-ups company and non start-ups company and discuss the results. For employee engagement, the researcher would analyse in the same way as digital culture, by calculating and comparing the average score between start-ups and non start-ups company. Employee engagement score was calculated with the formula below and categorized based on Employee Engagement Criteria shown in Table 2.

$$\text{Score of Employee Engagement} = (Q_{\text{Basic Needs}} \times 2) + (Q_{\text{Individual Needs}}) + (Q_{\text{Teamwork Needs}}) + (Q_{\text{Growth Needs}} \times 2)$$

Table 2. Score Range for Each Employee Engagement Criteria

Employee Engagement Criteria	Total Score
Actively Disengaged	16 – 32
Not Engaged	33 – 64
Engaged	65 – 80

For analysis on digital maturity, the principle was similar, with additional step where the companies would then be categorized to one of the digital segments of Gill and VanBoskirk’s model according to the score range in Table 3. The researcher used a simplified Gill and VanBoskirk’s model since only two (2) indicators per variable were utilized, rather than seven (7) indicators suggested by Gill and VanBoskirk. This simplification was done with the purpose to avoid having the questionnaire too long that may impact to a lower response rate. A similar simplification has been done previously with the same purpose resulting sound results.

Table 3. Score Range for Each Maturity Segment

Maturity Segment	Gill and VanBoskirk Score Range	Gill and VanBoskirk Distribution of Score (%)	Simplified Gill and VanBoskirk Score Range
Sceptics	0 - 33	39%	0 - 1.96
Adopters	34 - 52	23%	1.97 - 3.09
Collaborators	53 - 71	23%	3.10 - 4.22
Differentiators	72 - 84	15%	4.23 – 5

Second, the researcher would analyse the average digital culture score in relation to the average employee engagement score, by comparing both scores. Further, the researcher would describe some diagnosis on the impact of digital culture to the employee engagement by looking at which indicators in the digital culture and indicators in the employee engagement that have higher average scores compared to the lower ones in two scenarios, i.e., the start-ups company and non start-ups company, and discuss the comparison. Third, an analysis would be conducted on the digital culture score in relation to the digital maturity score, by comparing both scores. The same method would be done in the second part of analysis, where the researcher described some diagnosis on the impact of digital culture to the digital maturity by looking at which indicators in the digital culture and indicators in the digital maturity that have higher average scores compared to the lower ones in two scenarios, i.e., the start-ups company and non start-ups company, and discussed the comparison. Lastly, the researcher would discuss the extent of relationship between digital culture towards employee engagement and digital culture towards digital maturity using simple linear regression. The researcher also conducted hypothesis testing towards employee engagement and digital maturity variable using Pearson’s Correlation to justify whether there was a relationship between the two with hypothesis as follows:

- H0 = There is no relationship between employee engagement and digital maturity
- H1 = There is relationship between employee engagement and digital maturity

The relationship was assessed using IBM SPSS Statistics 25 for Windows statistics. Pearson’s correlation analysis was used to determine the relationship between Employee Engagement and Digital Maturity variables which is stated by the relationship coefficient (r). Guidelines for decision making were analysed based on the significance value (Sig) of the SPSS output. If Significant Value (2-tailed) <0.05, then there is a correlation and if Sig. value> 0.05 then there is no correlation and the researcher can accept the null hypothesis (Santoso [29]).

**III. RESULTS AND DISCUSSION**

There were 82 valid responses received and as shown in Figure 4, the number of female respondents were 43 people (52%) which was more than the male respondents (48%). The largest group of respondents are between 25 - 40 years old, that is 59 people or 72%, followed by the

respondents between 41 - 55 years old (24%) and respondents aged less than 24 years old (4%).

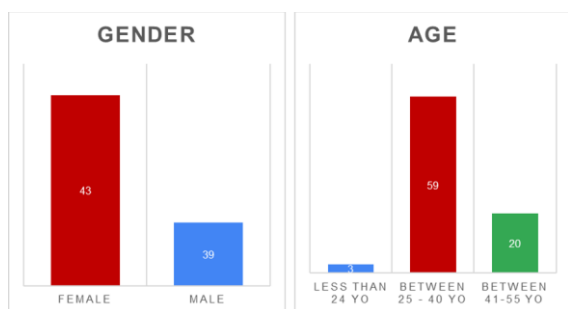


Figure 4. Demography of Participants

The portion between respondents from start-ups company versus the non start-ups are 30:70 as shown in Figure 5. The non start-ups respondents came from various industries which were dominated by the Financial Industry, namely as many as 22 people or 27%, followed by Port Services which amounted to 11 people or 13% and others.

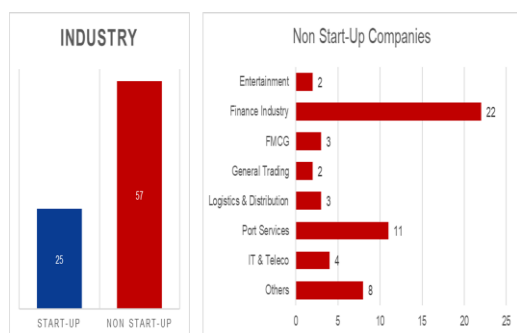


Figure 5. Participants composition based on companies

The survey result is shown in Figure 6. The start-ups company had digital culture score of 4.33, employee engagement of 63.80 and digital maturity score of 4.02. The non start-ups company had lower score for all, i.e., digital culture score of 3.64, employee engagement score of 58.54 and digital maturity score of 3.39.

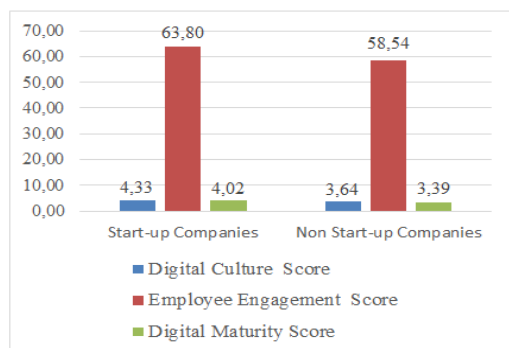


Figure 6. The comparison of Digital Culture score vs Employee Engagement Score vs Digital Maturity Score of Start-ups Company vs Non Start-ups Company

Based on the employee engagement scores above and match them to Table 2, then both start-ups company and non start-ups company were categorized to “Not Engaged” criteria. For digital maturity scores, according to the Table 3, both start-ups company and non start-ups company were categorized to “Collaborators” maturity segment.

A simple regression analysis conducted on Digital Culture with Employee Engagement shows the following results as shown in Table 4.

Table 4. Correlation Coefficient Analysis – Model Summary Digital Culture towards Employee Engagement

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731 <sup>a</sup>	.535	.529	8.72541

a. Predictors: (Constant), Digital Culture

The table above explains the value of the correlation or relationship (R), which is 0.731. From this output, the coefficient of determination (R Square) was 0.535, meaning that the influence of Digital Culture on Employee Engagement is 53.5%. In order to interpret the strength of this correlation, the R value (0.731) was compared against the criteria in Table 5, which then could be concluded that there was a strong relationship between Digital Culture variable and Employee Engagement variable.

Table 5. Interpretation of Correlation Coefficients (Sugiyono, Metode Penelitian Kuantitatif Kualitatif dan R&D, 2012)

Correlation coefficient	Relationship Level
0.00 – 0.199	Very Low
0.20 – 0.399	Low
0.40 – 0.599	Medium
0.60 – 0.799	Strong
0.80 – 1.00	Very Strong

As shown in Table 6, the regression coefficient for Digital Culture variable (X) was 1.593, meaning that every 1% addition of the value of Digital Culture, the value of Employee Engagement increased by 1.593. The regression coefficient was positive, so the direction of the influence of Digital Culture on Employee Engagement is positive. For decision making in this Simple Regression Test, the significance value was 0.000 < 0.05, therefore it was concluded that the Digital Culture variable (X) affects Employee Engagement (Y).

Table 6. Simple Linear Regression Analysis Results  
 Digital Culture towards Employee Engagement

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.209	4.580		3.757	.000
	Digital Culture	1.593	.166	.731	9.589	.000

a. Dependent Variable: Employee Engagement

Next, a simple regression analysis of Digital Culture with Digital Maturity was carried out, to find the value of the correlation or relationship (R), which was 0.845 as shown in the Table 7. From this output, the coefficient of determination (R Square) was 0.715, which means that the influence of Digital Culture on Digital Maturity was 71.5%. When compared against the Table 5, the correlation coefficient of 0.845 meant that there was a very strong relationship between Digital Culture variable (X) and Employee Engagement (Y) variable.

Table 7. Correlation Coefficient Analysis – Model Summary  
 Digital Culture towards Digital Maturity

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845 <sup>a</sup>	.715	.711	3.79143

a. Predictors: (Constant), Digital Culture

As shown in Table 8, the regression coefficient for Digital Culture variable (X) was 1.022, which states that every 1% addition of the value of Digital Culture, the value of Digital Maturity increases by 1.022. This was an interesting, since in the previous result has shown that Digital Culture increased a higher value of Employee Engagement (1.593) if compared to its effect to Digital Maturity (1.022).

The regression coefficient was shown to be positive, therefore the direction of the influence of Digital Culture on Digital Maturity was also positive. The significance value is 0.000 < 0.05 and based on the significance value the coefficient table, it can be concluded that the Digital Culture variable (X) affects Digital Maturity (Y).

Table 8. Simple Linear Regression Analysis Results  
 Digital Culture towards Digital Maturity

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.091	1.990		.548	.585
	Digital Culture	1.022	.072	.845	14.161	.000

a. Dependent Variable: Digital Maturity

Lastly, the researcher investigated a correlation between Employee Engagement and Digital Maturity in

order to answer the hypothesis testing defined in the Research Model section. It was shown in Table 9 that the correlation coefficient was 0.832 and the Sig value is 0.000 < 0.05. Based on this result, it was concluded that H0 is rejected and H1 is accepted. This means that Employee Engagement and Digital Maturity correlates positive and has a very strong relationship level.

Table 9. Pearson's Correlation Analysis Results  
 Employee Engagement towards Digital Maturity

Correlations			
		Employee Engagement	Digital Maturity
Employee Engagement	Pearson Correlation	1	.832**
	Sig. (2-tailed)		.000
	N	82	82
Digital Maturity	Pearson Correlation	.832**	1
	Sig. (2-tailed)	.000	
	N	82	82

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

This study aims to find out how difference a digital culture in start-ups company compared to the non start-ups company. Based on the detail result in Figure 7, the digital culture that are measured by seven variables that are collaboration, customer centricity, innovation, open culture, agility and flexibility, digital-first mindset and data-driven decision making, have consistently higher variable scores in the start-ups company compared to the non start-ups company.

Innovation gets the highest score in the start-up companies while Customer Centricity has the highest one in the non start-ups company. Interestingly, both group of companies have the same variable that get the lowest score, which is Digital-First Mindset. The largest digital culture gap between start-ups company and non start-ups company is within the variable Innovation, with the score gap of 0.92, and the smallest gap happens in the variable Collaboration, with the score gap of 0.39. This result is expected since it is understood that the start-ups company use to have experiments and innovations in producing their products, and risk-taking is their inclination in order to survive the business. This is the same reason explaining that Innovation becomes the highest score for the start-ups company. Collaboration, on the other hand, has the smallest gap and this is understandable since among the other six variables, Collaboration is the culture that "least" digital and therefore also consistently happens and used in the non start-ups company.

Digital-First Mindset becomes the lowest score for both start-ups and non start-up company, and this is an interesting finding especially for start-ups company, which means digital solutions are not always prioritized in all areas of work, even in the start-ups. On the contrary, Digital-First Mindset culture is not anticipated in the non start-ups company and this is justified with this variable being the lowest score.

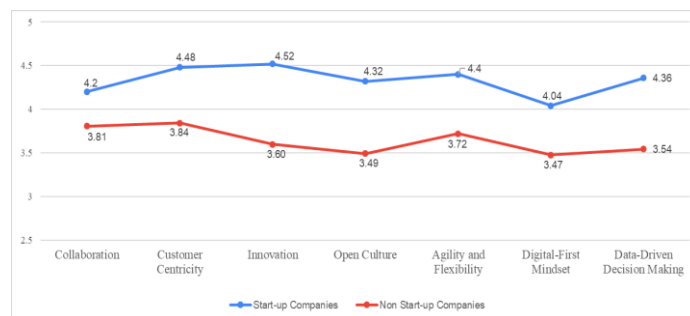


Figure 7. Digital Culture of Start-Ups company vs Non Start-Ups Company

Another interesting discovery is that Customer Centricity culture becomes the highest score in the non start-ups company which means that they have been using digital technologies to create stronger customer engagement. The possible reason behind this is that the non-start-up companies have now become more aware on the customer experience and customer engagement especially during the Covid-19 pandemic with its lock down consequences where companies are pushed to use digital technologies to get closer to its customers.

This research also aims to find out the impact of digital culture to the employee engagement in the start-ups company and non start-ups company. As shown in Figure 8, the start-ups company have higher score of employee engagement and higher digital culture score. This is aligned with what happens in the non start-ups company where they have lower employee engagement score and lower digital score, compared to the start-ups. BCG study has revealed that with the right digital culture, an organization could attract talents and at the same time empowers people (Hemerling [11]). The research result is consistent with the BCG study, where it concluded that the right digital culture, in this case higher digital culture score, the start-ups company could more empower people and attract talents, in this case it could mean higher employee engagement score.

However, even though the start-ups company have higher employee engagement score than the non start-ups company, by more than 5 points, both group of companies fall in the same criteria of “Not Engaged”. This means that the impact of a stronger digital culture in start-ups company is not big enough to make its employee engagement to be in the category of “Engaged”. Further research should be conducted to find out which variables, if any, that have higher impact to the employee engagement score so that a company could use this to better facilitate its employee engagement.

Another objective of this research is to learn the impact of digital culture towards digital maturity for start-ups company and non start-ups company. As shown in Figure 8, the result is identical with the previous discussion about digital culture towards employee engagement, where the start-ups company have higher digital culture score and higher digital maturity score if compared to the non start-ups. This result aligned with the digital maturity models, such as Berghaus and Back model as well as the Gill and

VanBoskirk that was used in this research, that they believe the culture could impact the digital maturity of a company and therefore they put it as one of the variables.

However, digital maturity scores for both start-ups and non-start-ups are in the same segment maturity, that is Collaborators, even though the score difference is rather big, around 0.6 points. Interestingly in this case, by having higher digital maturity score, it does not necessarily mean that the start-ups company are in the higher digital maturity segment. The same research could be conducted in other country or region, to further compare and find out whether the specific characteristic of start-ups could be the reason of higher or lower digital maturity.

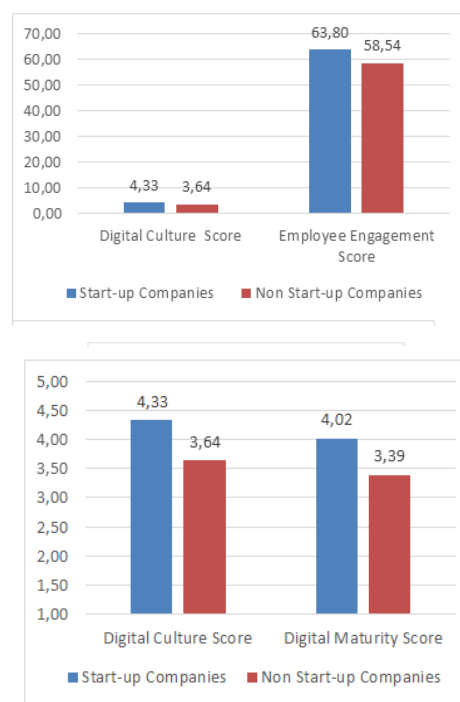


Figure 8. Digital Culture towards Employee Engagement and Digital Culture towards Digital Maturity in Start-ups and Non Start-Ups Companies

With the results above, this research culminates that digital culture plays an important role to engage the employees and act as a catalyst rather than a hurdle in company’s digital transformation. Lastly, this study also eager to find out the relationship between employee engagement and digital maturity. Deloitte study mentioned that reskilling and upskilling workforces to make them more digitally savvy contributes highly in the form of increased employee engagement (Gurumurthy, Schatsky, & Camhi [30]). This is aligned with the result of this study that shows a very strong relationship between employee engagement and digital maturity. Further research would be beneficial to find out what specific variables in the digital maturity that drives a higher employee engagement, and vice versa.

This study aims to find out how different a digital culture in start-ups company compared to the non start-ups company, and how the impact of digital culture towards



employee engagement and digital maturity in both group of companies. The result was digital culture in the start-ups company had significantly higher score compared to the non start-ups company. From seven variables of the digital culture, Innovation had the highest score in the start-ups while Customer Centricity had the highest in the non start-ups, and Digital First Mindset had the lowest score in both group of companies. Digital culture had strong relationship towards employee engagement and digital maturity, and for the start-ups company where they had higher digital culture score, they also had higher employee engagement and digital maturity scores compared to the non start-ups.

This research has contributed to the understanding of different digital culture in a different group of companies, start-ups and non start-ups, including variables that composed the digital culture so that the company managers could learn to apply this insight in improving the company's employee engagement and digital maturity. Further research has been suggested to investigate which digital culture's variable that would have the highest impact to the employee engagement. The similar study for start-ups and non start-ups company in other region or country would be beneficial so that the result comparison could be made especially in the characteristics of start-ups and non start-ups and their relation to a company's digital culture, employee engagement and digital maturity. The concept of digital culture has emerged as an essential component to the survival of organizations both start-ups and non-start-ups. Therefore, digital culture and its impact on digital maturity and employee engagement need to be scrutinized. All strategies and policies related to it must be focused on achieving long-term goals for the benefit of the organization and employees.

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