

Mixed Virtual Supports Startup Survival During Pandemic

[Mixed Virtual Mendukung Keberlangsungan Startup Selama Pandemi]

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The virtual team has been one of the solution strategies implemented by startups during the pandemic, in order to reduce virus spread (through physical and social distancing). The number of startups in Indonesia has been a great window of opportunity, however many startups have failed in the first year of operations, with the synergy of the teams being one of the principle causes. Unfortunately, studies on startup virtual teams in Indonesia are still lacking in portraying this situation. This study answers regarding the dynamics on startup virtual teams during the pandemic, with the aim of exploring the processes which took place within the startup virtual teams. The method used was that of convergent parallel mixed-methods, with the analysis of quantitative data from the questionnaires completed by 156 startup virtual teams, and of qualitative data from interviews conducted with five leaders of startup virtual teams. The study results indicated that the interaction of the teams was in mixed virtual form, i.e., the team interaction was performed not entirely online. Startup virtual teams during the pandemic conducted direct face-to-face interactions, prior to any virtual interaction, and/or were able to conduct face-to-face meetings during the pandemic, by paying attention to health protocols. These mixed virtual interactions created informal relationships, which supported the startups' survival through the pandemic.

Keywords: pandemic, startup, virtual team

Tim virtual merupakan salah satu strategi solusi yang dilakukan *startup* ketika pandemi demi menurunkan penyebaran virus (melalui *physical and social distancing*). Besarnya jumlah *startup* di Indonesia menjadi peluang besar, namun banyak *startup* yang gagal dalam satu tahun masa operasi pertama, dengan sinergitas tim sebagai salah satu penyebab utamanya. Sayangnya, studi mengenai tim virtual *startup* di tengah pandemi di Indonesia masih kurang memadai dalam menggambarkan kondisi tersebut. Studi ini menjawab bagaimana dinamika tim virtual *startup* di masa pandemi, dengan tujuan mengeksplorasi proses yang terjadi pada tim virtual *startup*. Metode yang digunakan adalah *convergent parallel mixed-methods* dengan menganalisa data kuantitatif dari kuesioner yang diisi 156 tim virtual *startup* dan data kualitatif dari interviu yang dilakukan pada lima pemimpin tim virtual *startup*. Hasil studi menunjukkan bahwa tim berinteraksi secara *mixed virtual*, yaitu interaksi tim tidak sepenuhnya dilakukan secara daring. Tim virtual *startup* di masa pandemi telah melakukan interaksi tatap muka langsung sebelum berinteraksi virtual dan/atau dapat melakukan pertemuan tatap muka di masa pandemi, dengan memperhatikan protokol kesehatan. Interaksi *mixed virtual* ini menciptakan hubungan yang informal yang dapat membuat *startup* bertahan di masa pandemi.

Kata kunci: pandemi, *startup*, tim virtual

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A virtual team is one which utilized computer technology to unite its geographically disparate members, in order to achieve joint goals (Robbins &

Tim virtual merupakan tipe tim yang menggunakan teknologi komputer dalam mempersatukan anggota yang tersebar secara

Judge, 2013). Virtual teams may also be called “high-performance virtual teams”, whereby the team members are involved in cross-border collaboration, to work jointly in the same team process (Friedrich, 2017). As the spread of the virus during the pandemic occurred via human networks (Taylor, 2019), the greater was the number of businesses who implemented virtual interaction as one of the forms of the application of physical and social distancing. One of these types was that of the startup which had already implemented virtual interaction, to the extent that virtual offices had been created (Darmawan & Wahyuni, 2019; Setyowati et al., 2019); besides these, 18% of startup activity switched to online mode during the pandemic (Simandjuntak et al., 2020, as cited in Aldianto et al., 2021). Virtual interaction provided opportunities for effective operation through dynamic working, to give rise to quick-adaption characteristics, and a number of perspectives, in the performance of the work (Putrivi, 2020).

Startups themselves became the beginnings of the development of organizations with an organizational life cycle approach. The term startup (Alamsyah, 2011) originated from English, meaning “a new organization or business venture”. With reference to this definition, this meant that, in its early stages, every trailblazing company might be known as a startup. However, this concept has since undergone a shift, under the digitalization situation of “Industry 4.0”, and the size of the digital market in Indonesia, which has given rise to a large number of characteristics of startup businesses, and their entrepreneurs, who tend more to operate in the fields of technology, websites, and matters pertaining to the Internet. As an example, there is the “1000 Startup Digital” program in Indonesia, which has given a window of entrepreneurial opportunity, on the basis of digital technology, to all corners of the Indonesian archipelago, as well as to the emergence of various other incubation programs for trailblazing, technology-based, companies. The European Startup Monitor (2019, as cited in Skala, 2019) also illustrated that startup companies had the following characteristics: (1) having had an operational period of less than 10 years; (2) having innovative and high technology business models; and (3) having the potential to scale up (increase their sales activity performances). At this moment, the startup concept is shifting to trailblazing companies which operate in the technological innovation field.

geografis untuk mencapai tujuan yang sama (Robbins & Judge, 2013). Tim virtual juga dapat disebut sebagai “tim virtual berperforma tinggi”, ketika tim terlibat dalam kolaborasi lintas batas dan bekerja pada proses tim yang sama (Friedrich, 2017). Sebagaimana penyebaran virus di masa pandemi terjadi melalui jaringan manusia (Taylor, 2019), semakin banyak perusahaan yang menerapkan interaksi virtual sebagai salah satu bentuk penerapan *physical and social distancing*. Salah satunya adalah *startup* yang telah memilih berinteraksi secara virtual hingga membuat *virtual office* (Darmawan & Wahyuni, 2019; Setyowati et al., 2019); selain itu, terdapat 18% kegiatan *startup* ketika pandemi yang beralih ke daring (Simandjuntak et al., 2020, sitat dalam Aldianto et al., 2021). Interaksi virtual memberikan kesempatan beroperasi efektif dengan cara kerja dinamis, untuk memunculkan karakter cepat beradaptasi dan sejumlah perspektif dalam melakukan pekerjaan (Putrivi, 2020).

Startup sendiri merupakan salah satu awal mula tumbuhnya organisasi dalam pendekatan *organizational life cycle*. Istilah *startup* (Alamsyah, 2011) berasal dari Bahasa Inggris yang berarti “a new organization or business venture” (“organisasi atau usaha bisnis baru”). Mengacu pada definisi tersebut, hal ini berarti bahwa pada awalnya setiap perusahaan rintisan dapat disebut sebagai *startup*. Namun, konsep ini mengalami pergeseran sebagaimana kondisi digitalisasi “Industri 4.0” dan besarnya pasar digital di Indonesia, yang memunculkan kebanyakan karakteristik bisnis *startup* dan pelakunya yang lebih condong bergerak di bidang teknologi, situs *web*, dan hal yang berkaitan dengan Internet. Sebagai contoh adalah program “1000 Startup Digital” di Indonesia yang memberikan peluang kewirausahaan berbasis teknologi digital ke seluruh penjuru Nusantara, serta munculnya beragam program inkubasi lainnya untuk perusahaan rintisan berbasis teknologi. *European Startup Monitor* (2019, sitat dalam Skala, 2019) juga menggambarkan bahwa perusahaan *startup* memiliki ciri: (1) memiliki waktu operasi kurang dari 10 tahun; (2) memiliki model bisnis inovatif dan teknologi tinggi; dan (3) memiliki potensi untuk *scale up* (meningkatkan kinerja penjualan). Saat ini, konsep *startup* bergeser pada perusahaan rintisan yang bergerak pada lingkup inovasi teknologi.

Based upon the data from Startup Ranking (n.d.), in 2019, Indonesia had 2,229 digital startups, and occupied the position of fourth ranking country in the world, or second ranking in Asia (after India), for the numbers of startups. The numbers of startups has risen by 24% during the pandemic, and a large portion of these were founded by self-employed individuals, or those out of work (Djankov & Zhang, 2021). Startups formed a potential for the economic growth of Indonesia, particularly startups in the technology fields, which contributed, directly and indirectly, to the society and economy, both before, and during, the pandemic (e.g., in support to health workers and hospital equipment, health services, educational services, business activities and recreation; Almeida, 2020). Of the 16 sub-sectors of the creative economy in Indonesia, the sub-sectors of games and applications, as well as photography, were the sub-sectors most active in seeking knowledge and ways to overcome problems, during the pandemic. The games and applications sub-sectors sought new types of consumers/clients, to optimize existing resources, and to collaborate with other business owners.

This was conversely comparable with with the number of technology startups which failed in their first year of operation, and generally suffered bankruptcy in five years (Vedat, 2021). Based upon a survey performed by the Katadata Insight Center (KIC; 2020), only 48.9% of startups have survived for longer than one year, during the pandemic. The height of the level of failure of startups has been a problem, since prior to the pandemic. In 2018, the DailySocial noted that, of 142 new startups in Indonesia, only four reached the stage of Initial Public Offering, on the Indonesian Stock Exchange, with only 12 startups succeeding in achieving mergers, and making business acquisitions (Eka, 2019). This may be important, because the ratio of new startups, against those which rose to the level of becoming trailblazer businesses, was around 11:1, meaning that of 11 startups begun, only one succeeded in developing to the next level (or, the rate of failure was approximately 90%). This was in line with an article on the Forbes webpage, which stated that 90% of startups founded in the world suffered failure (Patel, 2015). This situation indicated that the number of new startups needs to be balanced against the readiness to maintain their businesses.

Berdasarkan data *Startup Ranking* (n.d.), pada tahun 2019, Indonesia memiliki 2.229 *startup* digital dan menduduki posisi sebagai negara dengan *startup* terbanyak urutan keempat sedunia, atau kedua se-Asia (setelah India). Jumlah *startup* meningkat hingga 24% di masa pandemik ini dan sebagian besar merupakan *self-employed* atau karyawan yang kehilangan pekerjaan (Djankov & Zhang, 2021). *Startup* menjadi potensi bagi pertumbuhan ekonomi Indonesia, khususnya *startup* dalam lingkup teknologi, yang berkontribusi secara langsung dan tidak langsung terhadap masyarakat dan ekonomi, baik sebelum dan ketika pandemi (seperti dukungan kepada tenaga kesehatan dan peralatan rumah sakit, layanan kesehatan, layanan pendidikan, bisnis dan rekreasi; Almeida, 2020). Dari 16 sub-sektor ekonomi kreatif di Indonesia, sub-sektor *games* dan aplikasi serta fotografi merupakan sub-sektor yang paling aktif dalam mencari ilmu mengatasi permasalahan di masa pandemi. Sub-sektor *games* dan aplikasi berupaya mencari jenis konsumen/klien baru, melakukan optimalisasi pada sumber daya yang ada, serta melakukan kolaborasi dengan pelaku usaha lain.

Hal ini berbanding terbalik dengan banyaknya *startup* teknologi yang gagal dalam satu tahun masa operasi pertama dan umumnya mengalami kebangkrutan dalam lima tahun (Vedat, 2021). Berdasarkan survei *Katadata Insight Center (KIC; 2020)*, hanya 48,9% *startup* bertahan lebih dari satu tahun di masa pandemi ini. Tingginya tingkat kegagalan *startup* ini telah menjadi permasalahan sejak sebelum pandemi. Pada tahun 2018, *DailySocial* mencatat ada 142 *startup* baru di Indonesia, hanya empat *startup* yang mencapai tahap *Initial Public Offering* pada *Indonesia Stock Exchange*, dengan hanya 12 *startup* yang berhasil melakukan merger dan akuisisi bisnis (Eka, 2019). Hal ini dapat menjadi sorotan karena perbandingan *startup* baru dan *startup* yang berhasil naik tingkat sebagai bisnis rintisan adalah sekitar 11:1, berarti dari 11 *startup* yang didirikan, hanya satu *startup* yang berhasil mengembangkan *startup* tersebut ke tingkat yang lebih lanjut (atau persentase kegagalan sekitar 90%). Hal ini sesuai dengan pernyataan pada artikel dalam laman *web Forbes* yang menyatakan bahwa 90% *startup* yang didirikan di dunia mengalami kegagalan (Patel, 2015). Kondisi ini menunjukkan bahwa banyaknya jumlah *startup* baru perlu diimbangi dengan kesiapan *startup*

Moreover, in pandemic conditions, startups face challenges such as failure, interruptions to business development, difficulties in adapting to conditions, and matters of resilience to disaster (Kuckertz et al., 2020).

Prior studies have stated that the causes of startup failure were market problems, timing, the absence of a solid team, and weak business ideas (Jaya et al., 2017). In other studies, it has been stated that there were other causes, such as product-market challenges, financial problems, and management issues, such as problems with the team and human resources failures (Vedat, 2021). There have been other studies which indicated that the financial strategies of the startup companies were correlated with the situations of the founders of the startups, themselves (Keogh & Johnson, 2021). There have also been findings that less than 20% of the virtual teams of technology companies in the United States of America were able to function effectively during the pandemic, and that three out of four virtual teams failed in achieving their organizational objectives (Bull, 2021).

The team is the only asset possessed by a startup, and the human resources of a startup cannot work alone, so that what is needed is synergy between each other (Jaya et al., 2017). Both the venture capital providers and the employees of a startup itself consider this team situation to be important (Pratiwi et al., 2018; Widyaswara & Almahendra, 2018). The pandemic has also had an impact on the psychological conditions of individuals in the workspace (Shevlin et al., 2020; Tan et al., 2020; Williams et al., 2020) and the situations in the workplaces themselves, such as: work arrangements (flexibility of times and place), workloads, employment separations, and the management of meetings between employees in a more flexible working relationship, as well as career developments and the characteristics of the work itself (Spurk & Straub, 2020).

The size of the opportunity related to the number of digital startups in Indonesia, and the great challenges for a startup virtual team to maintain itself, gave rise to research questions such as: "What are the dynamics of a startup virtual team during this pandemic?". Previous studies have described virtual teams both in regard to: (1) team development (Corbitt et al., 2004; Johnson et al., 2002; Zofi, 2011); (2) trust within the virtual team (Meixner, 2018; Sarker et al., 2003); (3) the role of the leader (Charlier et al., 2016; Hoch &

untuk mempertahankan bisnisnya. Terlebih lagi dalam kondisi pandemi, *startup* mengalami tantangan seperti kegagalan, pengembangan perusahaan yang terhenti, adaptasi dengan kondisi, serta resiliensi bencana (Kuckertz et al., 2020).

Studi sebelumnya menyatakan bahwa penyebab kegagalan *startup* berupa *market*, *timing*, tim yang kurang *solid*, dan ide bisnis (Jaya et al., 2017). Pada studi lain, dinyatakan penyebab lain seperti *product-market challenge*, finansial, serta isu manajemen seperti tim dan kesalahan sumber daya manusia (Vedat, 2021). Ada studi lain yang menunjukkan bahwa *financial strategy* dari perusahaan *startup* berkorelasi dengan kondisi *founder startup* sendiri (Keogh & Johnson, 2021). Ada juga temuan yang menyatakan bahwa hanya kurang dari 20% dari tim virtual pada perusahaan teknologi di Amerika Serikat dapat berfungsi efektif di masa pandemi dan bahwa tiga dari empat tim virtual gagal mencapai objektif organisasi (Bull, 2021).

Tim adalah satu-satunya aset nyata yang dimiliki oleh sebuah *startup*, dan sumber daya manusia *startup* tidak dapat bekerja sendiri, maka dari itu dibutuhkan sinergi antara satu dan yang lainnya (Jaya et al., 2017). Baik *venture capital* dan karyawan *startup* sendiri menganggap bahwa kondisi tim ini penting (Pratiwi et al., 2018; Widyaswara & Almahendra, 2018). Pandemi juga berdampak juga pada kondisi psikologis individu dalam lingkup kerja (Shevlin et al., 2020; Tan et al., 2020; Williams et al., 2020) dan kondisi pekerjaan itu sendiri, seperti: *work arrangement* (fleksibilitas lokasi dan waktu), beban kerja, penyelesaian kerja dan pengelolaan pertemuan antara karyawan dalam hubungan kerja yang lebih fleksibel, serta perkembangan karir dan karakteristik pekerjaan (Spurk & Straub, 2020).

Besarnya peluang sehubungan dengan jumlah *startup* digital di Indonesia dan tantangan besar tim virtual *startup* dalam mempertahankannya menimbulkan pertanyaan penelitian berupa: "Bagaimana dinamika tim virtual *startup* di masa pandemi ini?". Studi sebelumnya telah menggambarkan tim virtual baik dalam: (1) perkembangan tim (Corbitt et al., 2004; Johnson et al., 2002; Zofi, 2011); (2) *trust* dalam tim virtual (Meixner, 2018; Sarker et al., 2003); (3) peran

Dulebohn, 2017); as well as (4) the effectiveness of the virtual team (Algesheimer et al., 2011; Friedrich, 2017; Maznevski & Chudoba, 2000; Mulyani, 2016). There has been a number of studies concerning startup teams (Forbes et al., 2006; Kerr et al., 2018; Lazar et al., 2017) and the situations in the creative industries during the pandemic (Kuckertz et al., 2020; Putrivi, 2020; Sedláček & Sterk, 2020), however studies specifically discussing the dynamics of the startup virtual team itself, in the midst of the pandemic in Indonesia, are still limited. This study, it was hoped, would be able to explore the processes occurring within the startup virtual teams, during the pandemic, and to develop knowledge of virtual teams in the context of startups, during the pandemic. Further, the results from this study, it was hoped, would be able to be utilized as references for later studies, besides having a practical use as a reference for startup companies, in applying the use of virtual teams during the pandemic.

leader (Charlier et al., 2016; Hoch & Dulebohn, 2017); serta (4) efektivitas dari tim virtual (Algesheimer et al., 2011; Friedrich, 2017; Maznevski & Chudoba, 2000; Mulyani, 2016). Telah ada sejumlah studi tentang tim *startup* (Forbes et al., 2006; Kerr et al., 2018; Lazar et al., 2017) dan kondisi industri kreatif di masa pandemi (Kuckertz et al., 2020; Putrivi, 2020; Sedláček & Sterk, 2020), namun studi yang secara khusus membahas dinamika tim virtual *startup* itu sendiri di tengah pandemi di Indonesia masih terbatas. Studi ini diharapkan dapat mengeksplorasi proses yang terjadi pada tim virtual *startup* ketika pandemi dan dapat memberikan pengembangan ilmu mengenai tim virtual pada konteks *startup* di masa pandemi. Selanjutnya, hasil studi diharapkan dapat dimanfaatkan sebagai referensi bagi studi berikutnya, selain memiliki kegunaan praktis sebagai acuan bagi perusahaan *startup* dalam menerapkan tim virtual di masa pandemi.

Method

Design

This study utilized a convergent parallel mixed-methods design concept. The design was implemented by collecting qualitative and quantitative data simultaneously, separately conducting analysis, then integrating the data, in order to answer the research questions (Creswell, 2011). The mixed-methods design, it was hoped, would be able to give a better comprehension, than to the use of only one method. Quantitative data can provide specific figures or scores, with statistical analysis, to a large number of the situations of participants, whereas qualitative data can provide an in-depth and complex illustration of the situation being studied. These two sets of data were then integrated and interpreted, as either convergent or divergent results. This method was also performed with the goal that the authors could perform the triangulation of methods by comparing the qualitative and quantitative results, so that these results could be mutually strengthening and validating. The data collection in this study fulfilled the standards of ethical research principles, as agreed by the *Komite Etika Penelitian* (Research Ethics Committee) of *Fakultas Psikologi Universitas Gadjah Mada* (Document Number 5361/UN1/FPSi.1.3/SD/PT.01.04/2020).

Metode

Desain

Studi ini menggunakan rancangan desain *convergent parallel mixed-methods*. Desain ini dilakukan dengan mengumpulkan data kualitatif dan kuantitatif dalam waktu yang sama, melakukan analisis secara terpisah, lalu mengintegrasikan data tersebut untuk menjawab pertanyaan penelitian (Creswell, 2011). Desain *mixed-methods* diharapkan dapat memberikan pemahaman yang lebih baik dibandingkan dengan apabila hanya menggunakan satu metode. Data kuantitatif dapat memberikan angka atau skor spesifik dengan analisis statistik untuk menggambarkan sejumlah besar kondisi partisipan, sedangkan data kualitatif dapat memberikan gambaran mendalam dan kompleks dari situasi yang diteliti. Kedua data tersebut kemudian diintegrasikan dan diinterpretasikan sebagai hasil yang konvergen atau divergen. Metode ini juga dilakukan dengan tujuan penulis melaksanakan triangulasi metode dengan membandingkan hasil kualitatif dan kuantitatif, agar hasil dapat saling menguatkan dan memvalidasi. Pengambilan data pada studi ini telah memenuhi standar prinsip etika penelitian, dengan persetujuan dari *Komite Etika Penelitian Fakultas Psikologi Universitas Gadjah Mada* (Nomor Surat 5361/UN1/FPSi.1.3/SD/PT.01.04/2020).

Table 1
Reliability of the Virtual Team Maturity Model (VTMM) Assessment Per Dimensions

Dimensi	Cronbach's Alpha	N of Items	Conclusion
Organize Get-To-Know-Each-Other	.631	3	High
Agree Rules	.501	3	Adequate
Set Goals	.718	3	High
Perform Task-Management	.774	4	High
Give and Receive Feedback	.694	3	High
Organize Decision-Making	.666	3	High
Conduct Meeting Management	.697	3	High
Engage in Trust-Building	.838	3	Very High
Define Information Management	.761	3	High
Give Rewards and Recognitions	.848	3	Very High
Arrange Ramping-Down	.685	3	High

Tabel 1
Reliabilitas Virtual Team Maturity Model (VTMM) Assessment Per Dimensi

Dimensi	Cronbach's Alpha	N Butir	Kesimpulan
<i>Organize Get-To-Know-Each-Other</i>	0,631	3	Tinggi
<i>Agree Rules</i>	0,501	3	Cukup
<i>Set Goals</i>	0,718	3	Tinggi
<i>Perform Task-Management</i>	0,774	4	Tinggi
<i>Give and Receive Feedback</i>	0,694	3	Tinggi
<i>Organize Decision-Making</i>	0,666	3	Tinggi
<i>Conduct Meeting Management</i>	0,697	3	Tinggi
<i>Engage in Trust-Building</i>	0,838	3	Sangat Tinggi
<i>Define Information Management</i>	0,761	3	Tinggi
<i>Give Rewards and Recognitions</i>	0,848	3	Sangat Tinggi
<i>Arrange Ramping-Down</i>	0,685	3	Tinggi

Instruments

To answer the research questions concerning the dynamics of startup virtual teams during the pandemic, for the quantitative portion of the method the study utilized the Virtual Team Maturity Model (VTMM) Assessment measurement instrument (Friedrich, 2017). The Virtual Team Maturity Model (VTMM) Assessment has 11 aspects, which are to be seen in Table 1.

Quantitative data was collected using online questionnaires, compiled based upon the Key Performance Indicator (KPI) blueprint of the Virtual Team Maturity Model (VTMM) Assessment (Friedrich, 2017). The virtual teams themselves have already been explained by Friedrich in the Virtual Team Maturity Model (VTMM) Assessment, using the 11 aspects, each of which has a different input, method, and output (Friedrich, 2017). These measured processes consisted of aspects oriented towards: (1) the area of results; (2) the area of group development; and (3) the psychological and other

Instrumen

Untuk menjawab pertanyaan penelitian mengenai dinamika tim virtual *startup* di masa pandemik, pada bagian metode kuantitatif, studi ini mengukur efektivitas tim virtual *startup*, dengan alat ukur *Virtual Team Maturity Model (VTMM) Assessment* (Friedrich, 2017). *Virtual Team Maturity Model (VTMM) Assessment* memiliki 11 aspek yang dapat dilihat pada Tabel 1.

Data kuantitatif dikumpulkan menggunakan kuesioner daring yang disusun berdasarkan *blueprint Key Performance Indicator (KPI) Virtual Team Maturity Model (VTMM) Assessment* (Friedrich, 2017). Tim virtual sendiri dijelaskan oleh Friedrich dalam *Virtual Team Maturity Model (VTMM) Assessment* dengan 11 aspek yang masing-masing memiliki *input*, metode, dan *output* berbeda (Friedrich, 2017). Sejumlah proses yang diukur tersebut terdiri dari aspek yang berorientasi pada: (1) area hasil; (2) area perkembangan kelompok; dan (3) area psikologis dan area penting

important areas, which influenced the performances of the teams. The aspects orientated towards the area of results covered: (1) Perform Task-Management; (2) Organize Decision-Making; (3) Conduct Meeting Management; and (4) Define Information Management. The aspects orientated towards the area of group development covered: (1) Organize Get-To-Know-Each-Other; (2) Agree Rules; (3) Set Goals; and (4) Give and Receive Feedback. The aspects orientated towards the psychological and other important areas influencing the performance of the team, covered: (1) Give Rewards and Recognitions; (2) Engage in Trust-Building; and (3) Arrange Ramping-Down. All of these aspects may be measured more operationally via the Key Performance Indicators (KPI), in comparing the ideal conditions against the actual conditions of the team, with the results of the levels of maturity of the startup virtual teams.

The aspects of Virtual Team Maturity Model (VTMM) Assessment and each Key Performance Indicator (KPI) per level of maturity have already been validated by the research of Friedrich, using Delphi-methods, with the results in the form of 85-100% of participants agreeing that the aspects of the Virtual Team Maturity Model (VTMM) Assessment are important to the performance of the team, and that an accurate Key Performance Indicator (KPI) could illustrate 90-100% of the performances of a team (Friedrich, 2017). The Key Performance Indicators (KPI) were later made more operational, in the form of 34 questions, which were found to be valid, within the range of *Aiken's V* = .69 - .94 (eight evaluators; $p = .05$), the reliability by the *stratified Cronbach's Alpha* = .924 (in the range of .501 - .848; more detailed results being provided in Table 1), and the results of the Confirmatory Factor Analysis (CFA) showing the model fit for the multidimensional construct, with scores of *RMSEA* = 0.045; *CFI* = 0.931; *TLI* = 0.918.

Analysis

The analysis of the results of the answers by the participants, from the Virtual Team Maturity Model (VTMM) Assessment measurement instrument, were given points in accordance with their levels of maturity, these being: undefined (0 points), basic (1 point), advanced (2 points), and mastery (3 points). The points from each subject, to each question, were then totaled, and divided by the total number of

lainnya yang mempengaruhi performa tim. Aspek yang berorientasi pada area hasil meliputi: (1) *Perform Task-Management*; (2) *Organize Decision-Making*; (3) *Conduct Meeting Management*; dan (4) *Define Information Management*. Aspek yang berorientasi pada area perkembangan kelompok meliputi: (1) *Organize Get-To-Know-Each-Other*; (2) *Agree Rules*; (3) *Set Goals*; dan (4) *Give and Receive Feedback*. Aspek yang berorientasi pada area psikologis dan area penting lainnya yang mempengaruhi performa tim meliputi: (1) *Give Rewards and Recognitions*; (2) *Engage in Trust-Building*; dan (3) *Arrange Ramping-Down*. Seluruh aspek tersebut dapat diukur secara lebih operasional melalui *Key Performance Indicator (KPI)*, dalam membandingkan kondisi ideal dan kondisi nyata tim dengan hasil level kematangan tim virtual startup.

Aspek *Virtual Team Maturity Model (VTMM) Assessment* dan setiap *Key Performance Indicator (KPI)* per level kematangan telah divalidasi pada penelitian Friedrich menggunakan *Delphi-methods*, dengan hasil berupa 85-100% dari partisipan setuju bahwa aspek *Virtual Team Maturity Model (VTMM) Assessment* adalah penting pada performa tim dan bahwa *Key Performance Indicator (KPI)* yang tepat dapat menggambarkan 90-100% dari performansi tim (Friedrich, 2017). *Key Performance Indicator (KPI)* kemudian dibuat lebih operasional dalam bentuk 34 pertanyaan yang sudah valid dengan rentang *Aiken's V* = 0,69 - 0,94 (delapan penilai; $p = 0,05$), reliabilitas dengan *stratified Cronbach's Alpha* = 0,924 (dengan rentang 0,501 - 0,848; hasil lebih detail tersedia dalam Tabel 1), dan hasil *Confirmatory Factor Analysis (CFA)* menunjukkan *model fit* untuk *multidimensional construct* dengan skor *RMSEA* = 0,045; *CFI* = 0,931; *TLI* = 0,918.

Analisis

Analisis hasil jawaban partisipan dari alat ukur *Virtual Team Maturity Model (VTMM) Assessment* diberikan poin sesuai dengan level kematangan (maturitas), yaitu: *undefined* (0 poin), *basic* (1 poin), *advanced* (2 poin), dan *mastery* (3 poin). Poin dari tiap subjek pada masing-masing pertanyaan kemudian dijumlahkan dan dibagi dengan keseluruhan total jawaban (“jumlah

questions (“number of questions x number of team members”). Conclusions were given on maturity numbers, without any rounding-off (for example: a score of 1.8 meant the team was still at Level 1). Analysis of the results of the Virtual Team Maturity Model (VTMM) Assessment was at the team level, calculated separately in the 11 phases of the team formation (Friedrich, 2017). The results of the data collection were then analysed, using descriptive statistics and the Analysis of Variance (ANOVA). Descriptive statistics were utilized in order to obtain the averages, as well as a comparison of the percentages of the ways one value was compared with another (Creswell, 2011), whilst the Analysis of Variance (ANOVA) was used to compare the averages from a number of groups (Howitt & Cramer, 2011).

The qualitative data results were analysed, through six thematic analytical phases, i.e.: (1) identification of data; (2) creation of codes; (3) construction of themes; (4) reviewal of potential themes; (5) defining and naming of the themes; and (6) production of the results (Terry et al., 2017).

The results of both the qualitative and quantitative data analysis, produced separately, were then compared and related, to discover whether these results indicated suitability, or not. The approach, in comparing the data in this study, was made using the compare and relate method, with a joint display method, i.e., grouping the data into the one table (Creswell, 2011). The credibility of the findings of the study was also tested, via member checking with the startup founder participants, who were interviewed.

Participants and Data Collection

The selection of participants was conducted using a purposive sampling method, and produced a participant total of $N = 230$, who were representatives of 156 digital startup virtual teams (businesses active in the production of technology-based products). The startup virtual teams who became participants were those whose businesses were still viable during the pandemic, meaning that these teams had built their startups before the pandemic, and that their businesses were still running at the time of the data collection, with their businesses operational activities still functioning, and which had produced revenue during the pandemic. The determination of the startup virtual

pertanyaan x jumlah anggota tim”). Kesimpulan diberikan pada angka kematangan tanpa pembulatan (sebagai contoh: skor 1,8 berarti tim masih pada Level 1). Analisis hasil *Virtual Team Maturity Model (VTMM) Assessment* adalah level kelompok yang dilakukan terpisah pada 11 fase pembentukan kelompok (Friedrich, 2017). Hasil pengumpulan data kemudian dianalisis menggunakan statistik deskriptif dan *Analysis of Variance (ANOVA)*. Statistik deskriptif digunakan untuk mendapatkan rerata serta perbandingan persentase bagaimana satu nilai dibandingkan dengan nilai yang lain (Creswell, 2011), sedangkan *Analysis of Variance (ANOVA)* digunakan untuk membandingkan rerata dari beberapa kelompok (Howitt & Cramer, 2011).

Hasil data kualitatif dianalisis melalui enam fase analisis tematik, yaitu: (1) mengenali data; (2) membuat kode; (3) membangun tema; (4) mereview tema yang potensial; (5) mendefinisikan dan memberikan nama dari tema; dan (6) memproduksi hasil (Terry et al., 2017).

Hasil analisis data kualitatif dan data kuantitatif yang telah dilaksanakan secara terpisah kemudian dibandingkan dan dihubungkan untuk menemukan apakah hasil tersebut menunjukkan kecocokan atau tidak. Pendekatan dalam membandingkan data pada studi ini dilakukan melalui *compare and relate* dengan *joint display*, yaitu menggabungkan data dalam satu tabel yang sama (Creswell, 2011). Temuan studi juga diuji kredibilitasnya melalui *member checking* pada partisipan *founder startup* yang diwawancarai.

Partisipan dan Pengumpulan Data

Pengumpulan partisipan dilakukan dengan metode *purposive sampling* dan menghasilkan total jumlah partisipan $N = 230$, yang merupakan perwakilan dari 156 tim virtual *startup* digital (perusahaan yang bergerak dalam pembuatan produk berbasis teknologi). Tim virtual *startup* yang menjadi partisipan adalah tim yang bisnisnya masih bertahan di masa pandemi, dalam arti tim tersebut telah membangun *startup* sebelum pandemi dan bisnisnya masih berjalan hingga saat pengambilan data, dengan kegiatan operasional perusahaan masih berjalan dan mendapatkan *revenue* di masa pandemi. Penentuan tim virtual

teams also referred to the characteristics of a startup, on the basis of the European Startup Monitor (2019, as cited in Skala, 2019), i.e.,: (1) having been operational for less than 10 years; (2) having an innovative and high-technology business model; and (3) having the potential to scale up (increase their sales performances).

Study questionnaires were distributed through a number of open public social media accounts, and through personal contact, being services in contact with 725 different startup virtual teams, via e-mail, Telegram, Instagram, WhatsApp, and LinkedIn. Besides this, the authors suggested data collection cooperation with 63 facilitators of startup programs, such as incubation centers, co-working spaces, and startup communities. From these suggestions for cooperation, there were 18 facilitators of startup program services who were willing to assist in the distribution of the questionnaires, and who recommended the names of a number of startups which were conducted under the auspices of facilitators of startup program services. These facilitators of startup program services were located in a number of major cities in Indonesia, such as Jakarta, Depok, Tangerang, Bandung, Yogyakarta, Surabaya, Denpasar, Makasar, and Palembang. The authors then conducted periodic follow-ups with the representatives of 156 startup virtual teams, who were willing to become participants and to distribute questionnaires, although the startup virtual teams were not willing to obligate their team members to complete the questionnaires. From this, results in the form of 230 team representatives who were considered to describe, as representatives, the situations of their teams. These team representatives were employees, or founders, of startups who had worked with their startups for a minimum term of one year. Information on the demographic data of these representatives of startup virtual teams is provided in Table 2.

The participants, who became the sources for the qualitative data, were five team leaders or founders of startups. Participants were chosen based upon discussions with the providers of startup development programs, the criteria being: (1) conformance with sampling criteria; and (2) availability to participate. Qualitative data was collected using semi-structured interviews, via virtual media and video-audio recordings. Interview guidelines were developed based upon the concept

startup juga mengacu pada karakteristik *startup* berdasarkan *European Startup Monitor* (2019, sitat dalam Skala, 2019), yaitu: (1) memiliki waktu operasi kurang dari 10 tahun; (2) memiliki model bisnis inovatif dan teknologi tinggi; dan (3) memiliki potensi untuk *scale up* (meningkatkan kinerja penjualan).

Kuesioner studi disebarakan melalui sejumlah akun media sosial yang bersifat *open public* dan kontak personal yang terdiri dari kontak layanan 725 tim virtual *startup* berbeda melalui *e-mail*, *Telegram*, *Instagram*, *WhatsApp*, dan *LinkedIn*. Selain itu, penulis mengajukan kerjasama pengumpulan data kepada 63 penyedia program *startup* seperti pusat inkubasi, *co-working space*, dan komunitas *startup*. Dari pengajuan kerjasama tersebut, terdapat 18 penyedia program layanan *startup* yang bersedia membantu menyebarkan kuesioner dan merekomendasikan sejumlah nama *startup* di bawah naungan penyedia program layanan *startup*. Penyedia program layanan *startup* tersebut terletak di sejumlah kota besar di Indonesia, seperti Jakarta, Depok, Tangerang, Bandung, Yogyakarta, Surabaya, Denpasar, Makasar, dan Palembang. Penulis kemudian melakukan *follow-up* berkala pada perwakilan dari 156 tim virtual *startup* yang bersedia menjadi partisipan dan menyebarkan kuesioner, walaupun tim virtual *startup* tidak bersedia mewajibkan anggota timnya untuk mengisi kuesioner. Maka dari itu, didapatkan hasil berupa sejumlah 230 perwakilan tim yang dianggap representatif menggambarkan kondisi timnya. Perwakilan tim adalah karyawan atau pendiri *startup* yang telah bekerja di *startup* tersebut selama setidaknya satu tahun. Informasi data demografi perwakilan tim virtual *startup* tersebut tersedia dalam Tabel 2.

Partisipan yang menjadi sumber data kualitatif merupakan lima orang *team leader* atau *founder* pada *startup*. Partisipan dipilih berdasarkan diskusi dengan penyedia program pengembangan *startup*, yaitu: (1) kesesuaian dengan kriteria sampling; dan (2) kesediaan partisipan. Data kualitatif dikumpulkan menggunakan *semi-structured interview*, melalui media virtual dan rekaman video-audio. Panduan interviu dikembangkan berdasarkan konsep dinamika tim virtual, yang

Table 2
Demographic Data for Representatives of Startup Virtual Teams (N = 230)

Demographic Data	Frequency	%
Position		
Team Leader	129	56%
Production Staff	47	20%
Marketing Staff	37	16%
Operational Staff	17	7%
Gender		
Male	147	64%
Female	83	37%
Domicile		
Special Region of Yogyakarta	35	15%
Jabodetabek	67	29%
West Java	68	30%
Central Java	9	4%
East Java	18	8%
Bali & West Nusa Tenggara	3	1%
Kalimantan	7	3%
Sulawesi	12	5%
Sumatera	11	5%

Tabel 2
Data Demografi Perwakilan Tim Virtual Startup (N = 230)

Data Demografi	Frekuensi	%
Posisi		
<i>Team Leader</i>	129	56%
Staff Produksi	47	20%
Staff <i>Marketing</i>	37	16%
Staff Operasional	17	7%
Jenis Kelamin		
Laki-Laki	147	64%
Perempuan	83	37%
Lokasi Tempat Tinggal		
D.I. Yogyakarta	35	15%
Jabodetabek	67	29%
Jawa Barat	68	30%
Jawa Tengah	9	4%
Jawa Timur	18	8%
Bali & Nusa Tenggara Barat	3	1%
Kalimantan	7	3%
Sulawesi	12	5%
Sumatera	11	5%

of the dynamics of virtual teams, then validated by expert judgement. Semi-structured interviews were chosen, with consideration given to there being opportunities for probing questions, to obtain data with more depth, and the better to comprehend the intent behind the answers given by the participants.

kemudian divalidasi dengan *expert judgement*. *Semi-structured interview* dipilih dengan pertimbangan adanya peluang untuk pertanyaan *probing* untuk mendapatkan data yang lebih mendalam dan untuk memahami maksud dari jawaban partisipan dengan lebih baik.

Results

Quantitative

Quantitative analysis was performed with 156 startup virtual teams. In accordance with the results of data processing from the Virtual Team Maturity Model (VTMM) Assessment (Friedrich, 2017), the answers from the representatives of these startup virtual teams were combined into an average form, representing the condition in these startup virtual teams.

The demographic data of the participants in the study is provided in Table 3. From the 156 startup virtual teams, it is known that the participants were dominated by startup virtual teams consisting of between 2-10 people (67%) and that they had mostly worked in this way between 0-3 years, since the foundation of the startup (60%). This indicated that the participants were startup virtual teams of what were still small pathfinding businesses, with minimal

Hasil

Kuantitatif

Analisis kuantitatif dilakukan pada 156 tim virtual *startup*. Sesuai hasil olah data *Virtual Team Maturity Model (VTMM) Assessment* (Friedrich, 2017), jawaban dari perwakilan tim virtual *startup* digabungkan menjadi satu dalam bentuk rerata yang merepresentasikan kondisi tim virtual *startup*.

Data demografi dari partisipan studi tersedia dalam Tabel 3. Dari 156 tim virtual *startup*, diketahui bahwa partisipan tim didominasi oleh tim virtual *startup* dengan jumlah anggota 2-10 orang (67%) dan berusia 0-3 tahun sejak pendirian *startup* (60%). Hal ini menunjukkan bahwa partisipan merupakan tim virtual *startup* pada perusahaan rintisan yang masih kecil, dengan kompleksitas kerja dan interaksi yang minim.

Table 3
Demographic Data of Startup Virtual Teams

Demographic Data	N	%
Age of Team		
0 - 3 years	93	60%
3 - 6 years	46	29%
6 - 9 years	17	11%
Number of Members		
2 - 10 people	105	67%
11 - 20 people	30	19%
> 21 people	21	13%
Industry Sector		
Business Services	56	36%
Online Retail	32	21%
Education	25	16%
Health	13	8%
Disbursement	10	6%
Agriculture	8	5%
Tourism	8	5%
Other	4	3%

work complexity and interaction. The majority of the teams were active in the business services sector (consultation, managerial applications, and so forth; 36%); followed by the online retail sector (various types of goods and services; 21%). These two sectors illustrated the business fields covered by all technology-based startups.

Averages for the Virtual Team Maturity Model (VTMM) Assessment were calculated, based upon descriptive statistics, which shared the levels of virtual interaction maturity in each aspect and categorization of team maturity levels per aspect. From the 156 startup virtual teams, the results indicated that 10 of the 11 interactional levels were those of a basic maturity level, as illustrated by the average scores being 1.3 - 1.9 (more detailed information is provided in Table 4). The basic level of maturity in all aspects was defined as informal virtual interaction, wherein the equipments to support the team processes had not as yet been fully implemented and all team processes had not been fully documented.

Based upon the Analysis of Variance (ANOVA), it was found that there were significant average differences ($p < .05$) between the levels of maturity of the startup virtual teams in the "Disbursement" sector (or what also may be termed financial technology). Financial technology is a technological advancement, which connects the Internet with banking activities. Startups operating in the financial technology sector were able to

Tabel 3
Data Demografi Tim Virtual Startup

Data Demografi	N	%
Usia Tim		
0 - 3 tahun	93	60%
3 - 6 tahun	46	29%
6 - 9 tahun	17	11%
Jumlah Anggota Tim		
2 - 10 orang	105	67%
11 - 20 orang	30	19%
> 21 orang	21	13%
Sektor Industri		
Layanan Bisnis	56	36%
Online Retail	32	21%
Pendidikan	25	16%
Kesehatan	13	8%
Pembayaran	10	6%
Pertanian	8	5%
Pariwisata	8	5%
Lainnya	4	3%

Mayoritas tim bergerak pada sektor layanan bisnis (konsultasi, aplikasi manajerial, dan sebagainya; 36%); diikuti dengan sektor *online retail* (berbagai jenis barang dan jasa; 21%). Kedua sektor tersebut menggambarkan lingkup bisnis untuk setiap *startup* berbasis teknologi.

Rerata *Virtual Team Maturity Model (VTMM) Assessment* dihitung berdasarkan statistik deskriptif yang membagi level kematangan interaksi virtual pada tiap aspek dan kategorisasi level kematangan tim per aspek. Dari 156 tim virtual *startup*, hasil menunjukkan bahwa 10 dari 11 aspek interaksi berada pada level kematangan *basic*, yang tergambarkan dalam rerata skor 1,3 - 1,9 (informasi lebih detail tersedia dalam Tabel 4). Level kematangan *basic* pada keseluruhan aspek didefinisikan sebagai interaksi virtual yang informal, ketika perangkat untuk mendukung proses tim belum sepenuhnya diimplementasikan dan segala proses tim belum didokumentasikan.

Berdasarkan *Analysis of Variance (ANOVA)*, ditemukan bahwa terdapat perbedaan rerata yang signifikan ($p < 0,05$) antara level kematangan tim virtual *startup* pada sektor "Pembayaran" (atau bisa juga disebut dengan *financial technology*). *Financial technology* merupakan suatu kemajuan teknologi yang menghubungkan antara teknologi Internet dan aktivitas perbankan. *Startup* yang bergerak pada sektor *financial technology* mampu menyederhanakan

Table 4
Results of Descriptive Analysis

Aspect	\bar{x}	Undefined		Basic		Advanced		Mastery	
		f	%	f	%	f	%	f	%
Organize Get-To-Know-Each-Other	1.3	50	32	67	43	33	21	6	4
Agree Rules	1.8	14	9	68	44	67	43	7	4
Set Goals	1.9	12	8	66	42	53	34	25	16
Perform Task-Management	1.8	4	3	74	47	65	42	13	8
Give and Receive Feedback	2.3	3	2	33	21	94	60	26	17
Organize Decision-Making	1.8	10	6	70	45	64	41	12	8
Conduct Meeting Management	1.5	30	19	69	44	44	28	13	8
Engage in Trust-Building	1.3	59	38	51	33	32	21	14	9
Define Information Management	1.9	1	1	65	42	76	49	14	9
Give Rewards and Recognitions	1.5	38	24	55	35	48	31	15	10
Arrange Ramping-Down	1.4	31	20	88	56	31	20	6	4

Note. f = frequency of participants giving a response in accord with answer choices.

Tabel 4
Hasil Analisis Deskriptif

Aspek	\bar{x}	Undefined		Basic		Advanced		Mastery	
		f	%	f	%	f	%	f	%
Organize Get-To-Know-Each-Other	1,3	50	32	67	43	33	21	6	4
Agree Rules	1,8	14	9	68	44	67	43	7	4
Set Goals	1,9	12	8	66	42	53	34	25	16
Perform Task-Management	1,8	4	3	74	47	65	42	13	8
Give and Receive Feedback	2,3	3	2	33	21	94	60	26	17
Organize Decision-Making	1,8	10	6	70	45	64	41	12	8
Conduct Meeting Management	1,5	30	19	69	44	44	28	13	8
Engage in Trust-Building	1,3	59	38	51	33	32	21	14	9
Define Information Management	1,9	1	1	65	42	76	49	14	9
Give Rewards and Recognitions	1,5	38	24	55	35	48	31	15	10
Arrange Ramping-Down	1,4	31	20	88	56	31	20	6	4

Catatan. f = frekuensi partisipan memberikan respon sesuai pilihan jawaban.

simplify the processes of traditional banking (Iman & Tan, 2020). On the basis of the findings from the National Digital Research Center (NDRC; n.d., as cited in Fajar, 2020), the definition of financial technology is “innovation in the field of finances, using technology, to alter, simplify and improve financial services”. An example is a business connected to the provision of credit services, digital currency, digital banking, and so forth. The “Disbursement” sector showed an average score of 2.1 (more detailed information is provided in Table 5), meaning that the average of digital startups operating in the “Disbursement” field had a more mature level of startup virtual team interaction (an advanced level of maturity).

Qualitative

Qualitative data collection was performed with five team leaders, or founders, from five different

proses dari layanan perbankan tradisional (Iman & Tan, 2020). Berdasarkan *National Digital Research Center (NDRC; n.d., sitat dalam Fajar, 2020)*, definisi *financial technology* adalah inovasi dalam bidang keuangan menggunakan teknologi untuk mengubah, menyederhanakan, dan meningkatkan layanan jasa keuangan. Sebagai contoh adalah perusahaan sehubungan dengan pengadaan jasa kredit, mata uang digital, perbankan digital, dan sebagainya. Sektor “Pembayaran” menunjukkan skor rerata 2,1 (informasi lebih detail tersedia dalam Tabel 5), yang berarti bahwa rerata *startup* digital yang bergerak di bidang “Pembayaran” memiliki interaksi tim virtual *startup* yang lebih matang (tingkat kematangan *advanced*).

Kualitatif

Pengambilan data kualitatif dilakukan pada lima orang *team leader* atau *founder* dari lima *startup*

Table 5
Averages of Levels of Maturity Per Sector

Industry Sector	\bar{x} total	Organize Get-To-Know-Each-Other	Agree Rules	Set Goals	Perform Task-Management	Give and Receive Feedback	Organize Decision-Making	Conduct Meeting-Management	Engage in Trust-Building	Define Information-Management	Give Rewards and Recognitions	Arrange Ramping-Down
Business Services	1.7	1.2	1.8	1.9	2.0	2.3	1.8	1.7	1.3	2.0	1.3	1.3
Online Retail	1.6	1.1	1.7	1.8	1.6	2.3	1.8	1.4	1.1	1.8	1.5	1.2
Education	1.6	1.0	1.6	1.7	1.7	2.2	1.7	1.3	1.1	1.9	1.3	1.3
Health	1.6	1.3	1.4	1.6	1.8	2.1	1.8	1.4	1.0	1.8	1.7	1.6
Disbursement	2.1	1.7	2.1	2.1	1.9	2.2	2.2	2.1	2.3	2.2	2.1	2.1
Agriculture	1.8	1.5	1.8	1.7	1.4	2.2	2.3	1.5	1.5	1.8	2.0	1.5
Tourism	1.7	1.2	1.8	1.9	1.9	2.3	1.7	1.5	1.2	1.6	1.4	1.4
Other	1.6	0.9	1.5	1.7	1.8	2.2	1.5	1.4	1.5	1.6	1.6	1.2

Tabel 5
Rerata Level Kematangan Per Sektor

Sektor Industri	\bar{x} total	Organize Get-To-Know-Each-Other	Agree Rules	Set Goals	Perform Task-Management	Give and Receive Feedback	Organize Decision-Making	Conduct Meeting-Management	Engage in Trust-Building	Define Information-Management	Give Rewards and Recognitions	Arrange Ramping-Down
Layanan Bisnis	1.7	1.2	1.8	1.9	2.0	2.3	1.8	1.7	1.3	2.0	1.3	1.3
Online Retail	1.6	1.1	1.7	1.8	1.6	2.3	1.8	1.4	1.1	1.8	1.5	1.2
Pendidikan	1.6	1.0	1.6	1.7	1.7	2.2	1.7	1.3	1.1	1.9	1.3	1.3
Kesehatan	1.6	1.3	1.4	1.6	1.8	2.1	1.8	1.4	1.0	1.8	1.7	1.6
Pembayaran	2.1	1.7	2.1	2.1	1.9	2.2	2.2	2.1	2.3	2.2	2.1	2.1
Pertanian	1.8	1.5	1.8	1.7	1.4	2.2	2.3	1.5	1.5	1.8	2.0	1.5
Parwisata	1.7	1.2	1.8	1.9	1.9	2.3	1.7	1.5	1.2	1.6	1.4	1.4
Lainnya	1.6	0.9	1.5	1.7	1.8	2.2	1.5	1.4	1.5	1.6	1.6	1.2

Table 6
Background of Interview Participants

Participant Code	Position	Location of Startup	Business	Number of Members
P01W01	Founder – Chief Executive Officer (CEO)	Surabaya	Food Marketplace [Online Retail]	2-10 people
P02W01	Management – Leader of Human Resources	Jakarta	Psychology Digitization [Business Services]	>20 people
P03W01	Co-Founder – Leader of Business Development	Yogyakarta	Hobby & Activity [Online Retail]	2-10 people
P04W01	Co-Founder – Chief Financial Officer (CFO)	Yogyakarta	Data Analysis [Business Services]	11-20 people
P05W01	Founder – Chief Executive Officer (CEO)	Bandung	Studio Desain [Business Services]	2-10 people

Tabel 6
Latar Belakang Partisipan Wawancara

Kode Partisipan	Posisi	Lokasi Startup	Bisnis	Jumlah Anggota
P01W01	<i>Founder – Chief Executive Officer (CEO)</i>	Surabaya	<i>Food Marketplace [Online Retail]</i>	2-10 orang
P02W01	<i>Management – Leader Sumber Daya Manusia</i>	Jakarta	<i>Digitalisasi Psikologi [Layanan Bisnis]</i>	>20 orang
P03W01	<i>Co-Founder – Leader Business Development</i>	Yogyakarta	<i>Hobby & Activity [Online Retail]</i>	2-10 orang
P04W01	<i>Co-Founder – Chief Financial Officer (CFO)</i>	Yogyakarta	<i>Analisis Data [Layanan Bisnis]</i>	11-20 orang
P05W01	<i>Founder – Chief Executive Officer (CEO)</i>	Bandung	<i>Studio Desain [Layanan Bisnis]</i>	2-10 orang

startups, via online interviews, with questions related to the situations of their startup virtual teams during the pandemic. The details of the interview participants are provided in Table 6. The interview data were then analysed thematically, using the assistance of NVivo software.

The study results indicated (as shown in Figure 1) that the COVID-19 pandemic was an environmental situation which became an input, which altered the startup environment and gave rise to new challenges. In efforts to avoid the spread of the disease, together with the use of the speed of technological developments, startups interacted virtually. The interpersonal relationships formed between the startup virtual team members during the pandemic comprised four large themes, i.e.: (1) “shared”; (2) “tolerance”; (3) “aware”; and (4) “responsive”. These four themes occurred simultaneously and were mutually interconnected. Besides this interaction, there was a startup environmental context, included in which was the virtual system, which would be influential on team

yang berbeda melalui wawancara secara daring, dengan pertanyaan sehubungan dengan kondisi tim virtual *startup* di masa pandemi. Identitas partisipan wawancara tersedia dalam Tabel 6. Data wawancara kemudian dianalisis secara tematik menggunakan bantuan perangkat lunak *NVivo*.

Hasil studi menunjukkan (seperti tergambar pada Gambar 1) bahwa pandemi COVID-19 merupakan suatu kondisi lingkungan yang menjadi *input* yang mengubah lingkungan *startup* dan memunculkan tantangan baru. Dalam usaha menghindari penyebaran penyakit, beserta dengan pesatnya perkembangan teknologi, *startup* berinteraksi secara virtual. Hubungan interpersonal yang terbentuk di antara anggota tim virtual *startup* selama pandemi ini terdiri dari empat tema besar, yaitu: (1) “*shared*”; (2) “*tolerance*”; (3) “*aware*”; dan (4) “*responsive*”. Keempat tema tersebut terjadi secara bersamaan dan saling berhubungan satu sama lain. Selain interaksi tersebut, terdapat konteks lingkungan *startup*, termasuk di dalamnya *virtual system* yang akan berpengaruh pada dinamika

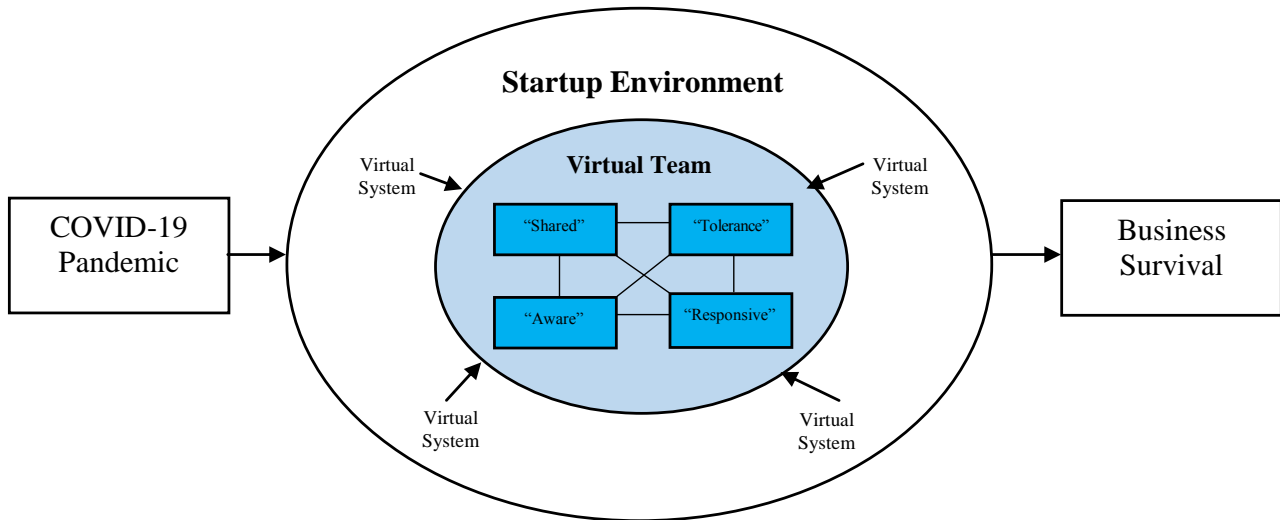
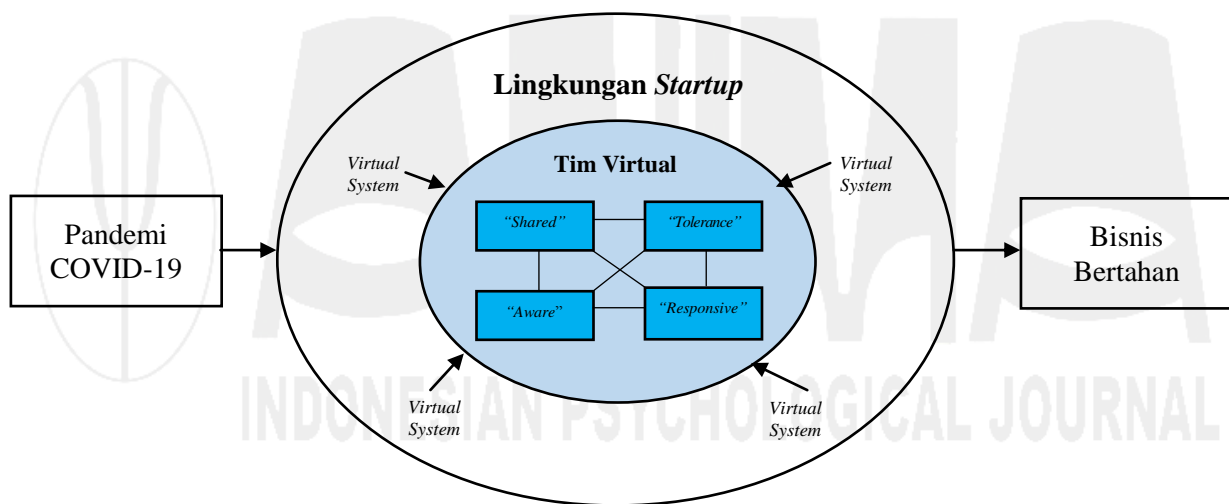


Figure 1. Dynamics of startup virtual team during pandemic.



Gambar 1. Dinamika tim virtual startup di masa pandemi.

dynamics. More detailed clarification related to these four themes, and the virtual system, is provided in Table 7.

The Theme “Shared”

The theme “shared” indicates that the members of the startup virtual team shared resources, problems, information, and togetherness regarding various other matters, alongside portion distribution in accordance with their goals. Several of the steps taken by the participants, which were concluded to be of the theme “shared”, were: (1) to conduct activities together; (2)

tim. Penjelasan lebih detail sehubungan dengan keempat tema dan *virtual system* tersedia dalam Tabel 7.

Tema “Shared”

Tema “*shared*” menunjukkan bahwa anggota dari tim virtual *startup* berbagi sumber daya, masalah, informasi, kebersamaan dalam berbagai hal, serta distribusi porsi sesuai tujuan. Sejumlah tindakan partisipan yang disimpulkan sebagai tema “*shared*” adalah: (1) melakukan aktivitas bersama; (2) membuka kesempatan agar anggota lain terlibat

to open up opportunities for other members to be involved in their activities, through questioning or making suggestions; (3) to provide support and additional resources to other members, despite the subject being outside their areas of responsibility; (4) to employ critical thinking, to provide reciprocity and mutual inputs, as improvements; (5) to opening up to others by sharing information; and (6) to share knowledge with other members. The following are some examples of statements by participants, involved in the theme “shared”:

“...we just chat, during rest breaks, or after office hours... just talk about anything at all, talk about life...” (P03W01).

“...because when they’ve have been through the onboarding process, they’re sure to have been given the CEO’s default wording, like that. They wouldn’t be fired for criticizing their CEOs, like that.” (P02W01).

“So, if anyone can’t finish their job, that’s when we have to back up each other.” (P01W01).

“...thank God, all of the team are open, all of them... so if there’s a problem, in the free sessions we can talk about it, too...” (P05W01).

The Theme “Tolerance”

The theme of “tolerance” shows there is a readiness to recognize and respect the differences, convictions, or work practices of others. The indicators were: (1) expressing positive thoughts regarding the presence of other members; (2) understanding, and seeming to feel, the situations of other members; and (3) the loss of several messages during interactions. For example, behavior indicating the theme of “tolerance” is that of an understanding of the activities others have, outside their work duties (for example attending lectures, or dealing with family matters), of tolerating personal inadequacies in other team members, in carrying out their duties, and of giving encouragement to others. The following are some examples of statements by participants about the theme of “tolerance”:

“...those inadequacies are from the human touch... that’s what non-interchangeable... no one can change that human touch... if I were to meet with them, I could hug them, maybe because of this pandemic...”

dengan aktivitasnya melalui perilaku bertanya atau mengajak; (3) memberikan dukungan dan sumber daya tambahan pada anggota lain meskipun hal tersebut berada di luar tugas kewajibannya; (4) berpikir kritis untuk memberikan timbal balik dan masukan satu sama lain sebagai perbaikan; (5) membuka diri dengan memberikan informasi; dan (6) membagi pengetahuan pada anggota lain. Berikut adalah sejumlah contoh pernyataan partisipan dalam tema “shared”:

“...kita ngobrol-ngobrol aja pas istirahat atau pas udah selesai jam kantornya... ngobrol-ngobrol apa aja bahas kehidupan” (P03W01).

“...karena ketika karyawan *onboarding* itu pasti udah disampein *default* kalimat *CEO*-nya gitulah. Kalian nggak akan dipecat karena mengkritik *CEO*-nya gitulah” (P02W01).

“Jadi ketika ada yang ga bisa nyelesin tugasnya ada yang bisa kita harus saling *back up* satu sama lain.” (P01W01).

“...alhamdulillah si anak-anak si terbuka semua si... jadi kalau ada *problem* di sesi bebas itu kita juga bisa cerita juga...” (P05W01).

Tema “Tolerance”

Tema “*tolerance*” menunjukkan adanya kesediaan untuk mengenali dan menghormati perbedaan, keyakinan, atau cara kerja orang lain. Indikatornya yaitu: (1) menyampaikan ungkapan positif atas keberadaan anggota lain; (2) memahami dan seakan-akan merasakan kondisi anggota lain; dan (3) kondisi hilangnya beberapa pesan dalam interaksi. Sebagai contoh, perilaku yang menunjukkan tema “*tolerance*” adalah memahami kegiatan anggota lain selain tugas kerjanya (misalnya kuliah atau keluarga), mentoleransi kekurangan personal tim dalam menjalankan tugasnya, dan memberikan semangat satu sama lain. Berikut adalah sejumlah contoh pernyataan partisipan dalam tema “*tolerance*”:

“...kurangnya di situ di *human touch*... itu yang ga bisa digantikan... ga ada yang bisa menggantikan *human touch*... kalau aku bisa ketemu mereka udah tak peluk gitu kan, mungkin karena pandemi gini...”

Table 7
Depiction of Teams as Result of Qualitative Analysis

Theme	Definition	Indicator
“Shared”	Sharing resources, problems, information, cooperation in various matters, distributing portions in accordance with goals.	<ol style="list-style-type: none"> 1. Conduct activities jointly with members. 2. Provide others opportunities to be involved. 3. Provide support and additional resources to work jobs outside one’s responsibilities. 4. Think critically, mutuality in giving inputs to others, for improvement. 5. Provide information, inform about situations. 6. Share knowledge with others.
“Tolerance”	Readiness to know and respect differences, convictions, or work style of others.	<ol style="list-style-type: none"> 1. Say positive things regarding the presence of others. 2. Understand and sympathize with situations of other members. 3. Loss of a number of messages in interactions, compared with prior to virtual interaction.
“Aware”	Careful heed taken on various matters in the internal and external scope of the business.	<ol style="list-style-type: none"> 1. Pay careful attention to various matters within the internal scope of the team. 2. Pay careful attention to external opportunities for team development. 3. Pay careful attention to dangers/possibilities for team failure.
“Responsive”	React easily, act quickly in answering people, occurrences or stimuli.	<ol style="list-style-type: none"> 1. Ambition, a strong desire to be successful. 2. Quick to respond, quick to react. 3. Strong wish/interest to learn something. 4. Take the next step, recheck activities. 5. Act more quickly than one’s responsibilities demand.
Virtual System	Order, organised work style, agreed by the team, for virtual interaction.	<ol style="list-style-type: none"> 1. Virtual interactions together with face-to-face meetings at fixed times. 2. Use of virtual software (technology) used by team for virtual interaction. 3. Time of agreement between members to be interconnected. 4. Work flow, duty and information distribution between team members.

if it’s like that, how can I hug my business partners... so the least I can do is encourage them, just via ZOOM, something like that.” (P01W01).

“Then there’s personal issues, too, what else could happen, it’s just via chat and we can’t see the emotions, can we, how they are, eh... so sometimes there’s misunderstandings, like that. So it’s like someone suddenly got all heated up... whilst I was just talking calmly... yeah, like that... in the first two or three months there were issues like that ” (P02W01).

The Theme “Aware”

The theme “aware” showed if team members deliberately paid attention to a number of matters in the external and internal scopes of the business. The indicators were: (1) careful attention being paid to various matters within the internal scope of the team; (2) careful attention being paid to an external opportunity for team development; and (3) careful attention being paid to any danger, or any possibility of the degradation of the team. Based upon the statements of the participants, the team members were

kalau gini kan gimana aku peluk partner bisnisku kan... jadi ya paling cuma aku semangat dari ZOOM aja gitu.” (P01W01).

“Lalu ada juga isu personal lah apa lagi kalau chat itu kan ga bisa di tebak emosinya seperti apa ya... jadi kadang ya salah paham gitu. Jadi kaya ko si ini nge-gas sih... padahal aku ngomongnya santai... ya kaya gitu sih... itu satu dua bulan awal ada isu kaya gitu sih” (P02W01).

Tema “Aware”

Tema “aware” menunjukkan bahwa anggota tim memperhatikan secara seksama berbagai hal di lingkup eksternal dan internal perusahaan. Indikatornya yaitu: (1) memperhatikan secara seksama berbagai hal di lingkup internal tim; (2) memperhatikan secara seksama pada kesempatan atau peluang eksternal pengembangan tim; dan (3) memperhatikan secara seksama bahaya atau kemungkinan kemunduran tim. Berdasarkan pernyataan partisipan, anggota tim menyadari

Tabel 7
Gambaran Tim Hasil Analisis Kualitatif

Tema	Pengertian	Indikator
“Shared”	Berbagi sumber daya, masalah, informasi, bersama-sama dalam berbagai hal, mendistribusikan porsi sesuai tujuan.	<ol style="list-style-type: none"> 1. Melakukan kegiatan bersama-sama dengan anggota. 2. Membuka kesempatan orang lain untuk terlibat. 3. Memberikan dukungan, sumber daya tambahan pada tugas kerja di luar kewajibannya. 4. Berpikir kritis, timbal balik dalam memberikan masukan satu sama lain untuk perbaikan. 5. Memberikan informasi, menceritakan kondisi. 6. Berbagi pengetahuan satu sama lain.
“Tolerance”	Kesediaan untuk mengenali dan menghormati perbedaan, keyakinan, atau cara kerja orang lain.	<ol style="list-style-type: none"> 1. Menyampaikan ungkapan positif atas keberadaan anggota lain. 2. Memahami dan seakan-akan merasakan kondisi anggota lain. 3. Hilangnya beberapa pesan dalam interaksi dibandingkan sebelum berinteraksi virtual.
“Aware”	Memperhatikan secara seksama pada berbagai hal di lingkup external dan internal perusahaan.	<ol style="list-style-type: none"> 1. Memperhatikan secara seksama pada berbagai hal di lingkup internal tim. 2. Memperhatikan secara seksama pada kesempatan eksternal/peluang untuk pengembangan tim. 3. Memperhatikan secara seksama pada bahaya/kemungkinan kemunduran tim.
“Responsive”	Mudah bereaksi, bertindak cepat dalam menjawab orang, kejadian atau stimuli.	<ol style="list-style-type: none"> 1. Hasrat, keinginan kuat untuk sukses. 2. Segera merespon, cepat tanggap. 3. Keinginan/ketertarikan yang kuat untuk mempelajari sesuatu. 4. Melakukan tindakan lanjutan, mengecek ulang kegiatan. 5. Bertindak lebih awal dibanding kewajibannya.
Virtual System	Keteraturan, cara kerja yang terorganisir yang disepakati tim untuk berinteraksi virtual.	<ol style="list-style-type: none"> 1. Interaksi virtual yang disertai dengan pertemuan tatap muka pada waktu tertentu. 2. Penggunaan perangkat virtual (teknologi) yang digunakan tim untuk saling berinteraksi. 3. Waktu kesepakatan antar anggota tim untuk terkoneksi satu sama lain. 4. Alur kerja, distribusi tugas dan informasi antara anggota tim.

aware of each other’s strengths and weaknesses, so that the team members needed to position themselves to complement each other. The participants stated that, at the beginning of the pandemic, there were many members who felt stressed, because of the limitations to their interactions, caused by physical and social distancing. This matter was able to be resolved when the human resources teams of the startups were sensitive about this situation. Besides this, the participants also looked at changes in the situations of their consumers, and utilized this as business models. The following are several examples of participant statements on the theme “aware”:

“...I saw the character potential of my team, if they had the spirits of hustlers, of hackers, of hipsters, like that. So I thought about if they had those sorts of spirits” (P01W01).

“Whereas, if we were to run to the government, or the government business institutions, their

kelebihan dan kekurangan satu sama lain sehingga anggota tim perlu menempatkan diri untuk saling melengkapi. Partisipan menyatakan bahwa pada awal pandemi, banyak anggota yang merasa stres karena keterbatasan interaksi yang disebabkan oleh *physical and social distancing*. Hal ini dapat diselesaikan ketika tim sumber daya manusia pada *startup* peka terhadap kondisi tersebut. Selain itu, partisipan juga melihat perubahan kondisi konsumen dan memanfaatkan hal tersebut sebagai model bisnis. Berikut adalah sejumlah contoh pernyataan partisipan dalam tema “aware”:

“...aku melihat potensi karakter dari timku ini apa punya jiwa *hustler*, jiwa *hacker* dan *hipster* itu. Makanya aku mikir mereka punya jiwa itu” (P01W01).

“Sedangkan, kalau kita lari ke pemerintah atau BUMN mereka itu posisinya adalah ga tau

situation would be that they wouldn't know what they needed, we'd teach 'em, it's us that'd do the driving, so they wouldn't want to go out anywhere" (P04W01).

The Theme "Responsive"

The theme of "responsive" shows that the members of the startup virtual teams react easily and quickly, in response to stimuli. The indicators of this were: (1) they had ambition, a strong desire to succeed; (2) they were quicker to respond, and showed initiative in responding to something, more rapidly than was their obligation or duty; and (3) they had a strong desire to learn, and to make follow-ups to the responses. What follows is a number of examples of statements from participants on the theme "responsive":

"...rather than wasting a lot of time thinking about a concept, OK, we just get in and do it first, then if it's wrong, we fix it... it's more like trial-error". (P02W01).

"...what is the term, eh? Yeah, explore further, other businesses... how were they founded, and I always study that... they say, don't they, there are many people who say, well, you have to learn from the successes of others, but for me, that's not so, Bro'. I really study their failures... I learn from their collapses... and one day I will know the failure they suffered, so I won't suffer the same thing in the future, like that..." (P01W01).

Virtual System

The virtual system is a part of the startup environment, defined as orderliness, or an organized way of working agreed to by the team, to interact virtually with each other. Every team can contrive a different system, to facilitate interaction between members, for instance: the lengths of meeting times, the facilities provided to members, or the media equipments to be used. As an example, there are several teams which conducted video call interactions routinely, on a daily basis, online meetings once a week, or other ways (for example: they have not only video calls, but also task management sessions, to manage the tasks).

"...all our interactions are by remote, by ZOOM, by calls, like that." (P01W01).

butuhnya mereka apa, kita yang ngajarin mereka, kita yang nge-drive sehingga mereka oh butuhnya ini jadi mereka nggak akan keluar ke mana-mana" (P04W01).

Tema "Responsive"

Tema "responsive" menunjukkan bahwa anggota tim virtual *startup* mudah bereaksi dan cepat bertindak dalam merespon stimuli. Indikatornya yaitu: (1) memiliki ambisi yaitu hasrat yang kuat untuk sukses; (2) cepat tanggap dan inisiatif dalam merespon sesuatu lebih awal dibanding kewajiban tugasnya; dan (3) keinginan kuat untuk belajar dan melakukan *follow-up* atas responnya. Berikut adalah sejumlah contoh pernyataan partisipan dalam tema "responsive":

"...dari pada ngabisin waktu lama untuk mikir konsepnya kenapa ya udah ga lakuin dulu aja nanti kalau salah di benerin... lebih ke trial-error". (P02W01).

"...istilahnya apa ya explore terus perusahaan-perusahaan lain... gimana cara berdirinya dan aku pelajari selalu itu... kan katanya banyak orang yang bilang ya kamu harus belajar dari kesuksesan orang, kalau aku nggak sih Kak. Aku justru belajar dari kegagalannya mereka... aku belajar dari kegagalannya mereka... dan one day aku tahu kegagalan yang mereka alami sehingga aku nggak bakal alami juga gitu..." (P01W01).

Virtual System

Virtual system merupakan bagian dari *startup environment*, didefinisikan sebagai keteraturan atau cara kerja terorganisir yang disepakati oleh tim untuk berinteraksi virtual satu sama lain. Setiap tim dapat membentuk sistem yang berbeda untuk memfasilitasi interaksi antar anggota, misalnya: jangka waktu meeting, fasilitas yang diberikan untuk anggota, atau perangkat media yang digunakan. Sebagai contoh adalah beberapa tim menerapkan interaksi *video call* secara rutin setiap hari, *online meeting* satu minggu sekali, atau lainnya (contoh: tidak hanya *video call* tapi juga integrasi *task management* untuk pengelolaan tugas).

"...kita interaksinya semua by remote, by ZOOM, by call gitu." (P01W01).

“Then, ahh... what else is there, that can also be integrated? What’s better, like studying from Microsoft Teams, that’s been integrated with Trello, now, as for that, Trello is more towards task management isn’t it, eh?” (P05W01).

One of the similarities of the virtual systems which were applied by the members of the startup virtual teams interviewed was that the teams had interacted in a face-to-face way, previously to, or occasionally during, the pandemic, besides their interaction using virtual media. A large number of the team members knew each other prior to their intensive virtual interaction (from business competition, education, or previous office routines). However, there were also team members who had never met face-to-face, because they joined up only during the pandemic.

“...the founders work from home, there’s one in Surabaya, and one in Jember, and some in Jakarta. They’re our founders. But the other employees, well, they certainly have to go into the field, like couriers, they can’t work from home, they have to work from [the] street.” (P01W01).

“...so, from the beginning of March, it’s been work from home up till now here, everyone, up till now. Well, at the beginning of March it was work from home, for two months in the beginning, all of us are often here, all of us, because no one’s been allowed to go home, because, of course, that is a decision from the government, too, like that. Well, so we all work online.” (P02W01).

Face-to-face interaction directly prior to and/or during the pandemic has helped the teams get to know each other, so that they have been able to create better interactions of the theme types: “shared”, “tolerance”, “aware”, and “responsive”. The participants complained about their discomfort with being in a team with people met only during the pandemic.

“Well, if for instance it’s virtual, it’s, what do you call it, the concerns being the greatest obstruction, the biggest one, is the signal, eh, and electrical things, like that, right, so that makes it ineffective, like that... we have a meeting each Monday... and, at the most, the meeting is only half an hour, or 45 minutes, at the most, so if it’s virtual it can’t be long, can it, because, what do

“Terus e... apalagi yang udah bisa ter-*integrated* yang lebih enak tuh, kaya contoh kalau dari *Microsoft Teams* itu udah terintegrated sama *Trello*, nah kalau *Trello* kan lebih ke *task management* yah” (P05W01).

Salah satu kesamaan dari *virtual system* yang diterapkan oleh partisipan tim *virtual startup* yang diwawancara adalah tim pernah berinteraksi secara tatap muka langsung (*face-to-face*) pada waktu sebelum atau sesekali ketika pandemi, di luar interaksi menggunakan media virtual. Sebagian besar anggota tim sudah saling mengenal sebelum intensif berinteraksi secara virtual (dari kompetisi bisnis, pendidikan, atau rutinitas kantor sebelumnya). Namun, ada juga anggota tim yang belum pernah bertemu tatap muka karena baru bergabung di masa pandemi.

“...*founder*-nya *work from home* ada yang di Surabaya di Jember sama di Jakarta. Itu *founder* kami. Tapi yang lain *employee* yang memang harus terjun di lapangan seperti kurir itu ga bisa *work from home* harus *work from street*.” (P01W01).

“...jadi mulai dari awal Maret itu udah *work from home* sampai sekarang. Nah awal Maret itu *work from home* kemudian sampai dua bulan awal semuanya masih sering di sini semua karena belum ada yang diizinkan untuk pulang karena memang keputusan dari pemerintah juga seperti itu. Nah jadi semua kerjanya *online*.” (P02W01).

Interaksi tatap muka langsung sebelum dan/atau ketika pandemi membantu tim untuk saling mengenal satu sama lain, sehingga dapat menciptakan interaksi tema “*shared*”, “*tolerance*”, “*aware*”, dan “*responsive*” yang lebih baik. Partisipan mengeluhkan ketidaknyamanan dengan tim yang baru saja ditemui di masa pandemi ini.

“Kan kalau misalnya virtual itu kan apa namanya, *concern* yang paling penghalang yang paling besar kan adalah sinyal ya dan hal-hal kelistrikan kaya gitu gitulah nah itu tu jadi makin gak efektif gitu loh... kita *meeting* hari Senin itu yang paling bener-bener *meeting*-nya kaya cuma setengah jam 45 menit paling lama, ini kalau di virtual ini bisa agak lama karena emang apa

you call it, there's this, and there's that... not on time. So there are just obstacles... in my opinion it's not effective, like that." (P03W01).

"Then there's around 1... 5 employees who absolutely have never met directly. Now, if you say there's obstacles, up to now from their feedback, they don't... only surely there's a few who are... but surely amongst them a few are quite awkward in communicating..." (P01W01).

Other Findings

Other findings from the qualitative data of the startup virtual teams dealt with context. The startup environment is the place where the startup virtual teams are, and this is generally a business characteristic which would have influence on the interpersonal processes of the teams. Characteristics of the startups which emerged in this study were the presence of an informal workflow, multirole tasking, and the initiation of the emergent leader. Startup virtual teams have small numbers of members, so this has caused the work channels not yet to have standard characteristics, and to have simple organizational structures. The division of roles and duties has become generalist, involving also a number of different tasks or jobs from the team members, or the roles.

"...well, my position, a co-founder, right, like it or not, I'm all around, I mean, I get into marketing, into engineering, and into management, too." (P04W01).

"Well, as for here, if I look at the structure, it's... what... not rigid, like that, so more cooperation. Yeah, it's really helping each other, like that." (P01W01).

"...so we have to be able to, at this time, now, we have to be able to be as flexible as we can." (P05W01).

The leader has a role to initiate the team to evoke the four themes ("shared", "tolerance", "aware", and "responsive"). In this context, the term emergent leader can also be used, i.e., an individual who has significant influence emerges from the team, in an informal manner, not because of their responsibilities as a leader. This is brought about by the fact that a startup virtual team comprises the founder, the co-founder, or several individuals categorized as being on the C-Level (generally

namanya ada yang ini lah ada yang itu lah... ga *on time* lah. Ya jadi halangan aja... menurutku jadi ga efektif gitu" (P03W01).

"Kemudian ada sekitar 1... 5 karyawan yang sama sekali belum pernah ketemu langsung. Nah kalau dibilang ada kendala sih sejauh ini dari *feedback* mereka ya ga ada sih... cuman memang beberapa ada yang rada canggung untuk komunikasi..." (P01W01).

Temuan Lain

Temuan lain dari data kualitatif tim virtual *startup* menjelaskan mengenai konteks. *Startup environment* merupakan tempat tim virtual *startup* berada, dan hal ini menjadi karakteristik bisnis secara umum yang akan berpengaruh pada proses interpersonal tim. Karakteristik *startup* yang muncul pada studi ini adalah adanya *informal workflow*, *multirole*, dan inisiasi dari *emergent leader*. Tim virtual *startup* memiliki jumlah anggota yang sedikit, maka hal ini menyebabkan alur kerja belum bersifat baku dan struktur organisasi yang sederhana. Pembagian peran dan tugas menjadi generalis, dengan juga melibatkan sejumlah tugas atau pekerjaan dari tim atau peran yang berbeda.

"...kan posisinya saya adalah *co-founder* ya mau nggak mau saya tu *all around*, artinya di *marketing* masuk, *engineering* masuk, dan manajemen juga masuk" (P04W01).

"Jadi kalau di sini aku lihat strukturnya itu apa ya nggak kaku gitu ya jadi lebih gotong-royong. Iya bener tolong menolong itu" (P01W01).

"...jadi kita harus bisa, sekarang saat ini harus bisa sefleksibel mungkin sih" (P05W01).

Leader berperan menginisiasi tim dengan memunculkan keempat tema ("*shared*", "*tolerance*", "*aware*", dan "*responsive*"). Dalam konteks ini, istilah *emergent leader* juga dapat digunakan, yaitu sebagai individu yang memberikan pengaruh signifikan, muncul dari tim secara informal dan bukan karena tanggung jawab sebagai pemimpin. Hal ini disebabkan oleh fakta bahwa tim virtual *startup* terdiri dari *founder*, *co-founder*, atau beberapa individu yang terkategori

holding executive positions), as well as members whose characteristics are multirole. What follows is a number of statements by participants, related the emergent leaders (initiators of the emergence of interaction):

“...I have a role like that, so we are actually C-Level, we’re actually people who work inside there also, we’re not lolling around, issuing orders, but we have a role in it, too. Ah, I remember when I wanted to record. When a courier was needed, I became the courier.” (P01W01).

“I too, if the CEO is having a debate with the production side, I become the mediator, or if I’m having a debate with the CEO, the ones who become the mediators are the production team, the... what do you call it... chief of production.” (P05W01).

Integration of Results

Table 8 provides the results of the integration of quantitative and qualitative data from a joint display approach, through the processes of compare and relate. Based upon the results of data integration, what was found was convergent and divergent data. The quantitative data indicated that on the average, startup virtual teams during the pandemic showed a basic level of maturity (average 1.3 - 1.9), meaning that the interaction between the team members was characterized as informal. This conclusion was in accord with the qualitative data, which indicated that the teams interacted virtually within the principle themes of “shared”, “tolerance”, “aware”, and “responsive” compared to the virtual system, which had the role of being the context, to facilitate the interpersonal processes of the team. The divergent data was indicated to be, on the average, lowest in the aspect of Engage in Trust-Building, with the qualitative findings indicating the presence of close interpersonal relationships between members.

Convergent data was seen in interpersonal processes, when the informal rules and integrated goals of the teams illustrated the success of the application of the themes of “shared” and “tolerance” in the qualitative data. These themes were in accord with the level of maturity of the aspect Give and Receive Feedback. Of the 156 startup teams, 60% showed processes at the advanced level of maturity in the aspect of Give and

dalam *C-Level* (umumnya memiliki posisi eksekutif), serta anggota yang bersifat *multirole*. Berikut adalah sejumlah contoh pernyataan partisipan sehubungan dengan *emergent leader* (penginisiasi munculnya interaksi):

“...saya berperan gitu jadi kita sebenarnya sebagai *C-Level* sebenarnya kita jadi orang yang kerja di dalamnya juga kita nggak santai-santai nyuruh-nyuruh juga tapi dapat peran juga di dalamnya. Aku jadi ingat waktu dulu mau *record*. Apa ya mau ajak kerja sama sama kurir aku itu jadi kurir” (P01W01).

“Aku juga kalau misalkan *CEO* lagi debat sama produksi aku jadi penengah, kalau misalkan aku lagi debat sama *CEO* yang jadi penengah tim produksi, apa... *chief* produksinya.” (P05W01).

Integrasi Hasil

Tabel 8 menyediakan hasil integrasi data kuantitatif dan data kualitatif dengan pendekatan *joint display* melalui *compare and relate*. Berdasarkan hasil integrasi data, ditemukan data yang konvergen dan divergen. Data kuantitatif menyatakan bahwa rerata tim virtual *startup* di masa pandemi ini menunjukkan level kematangan *basic* (rerata 1,3 - 1,9), yang berarti bahwa interaksi antara anggota tim bersifat informal. Simpulan ini selaras dengan data kualitatif yang menyatakan bahwa tim berinteraksi virtual dengan tema utama “*shared*”, “*tolerance*”, “*aware*”, dan “*responsive*” dibandingkan *virtual system* yang berperan sebagai konteks untuk memfasilitasi proses interpersonal tim. Data divergen ditunjukkan pada rerata terendah pada aspek *Engage in Trust-Building*, dengan temuan kualitatif yang menunjukkan adanya hubungan interpersonal yang dekat antar anggota.

Data konvergen terlihat pada proses interpersonal, ketika *informal rules* dan *integrated goals* tim menggambarkan keberhasilan penerapan tema “*shared*” dan “*tolerance*” pada data kualitatif. Tema tersebut selaras dengan level kematangan aspek *Give and Receive Feedback*. Dari 156 tim *startup*, 60% menunjukkan proses bertingkat kematangan *advanced* pada aspek *Give and Receive Feedback* dengan indikator proses

Table 8
Integration of Research Results

Theme	Quantitative Data	Qualitative Data	Findings
Level of Maturity	<ul style="list-style-type: none"> • 10 of 11 aspects on the basic level of maturity. • There were significant differences in the levels of team maturity between the “Disbursement” sector and the “Other” sectors. (Analysis of Variance [ANOVA]; $p < 0,05$). 	<ul style="list-style-type: none"> • Team interactions had the characteristics/themes of “shared”, “tolerance”, “aware”, “responsive”. • Various virtual systems • Mixed virtual. 	Startup virtual teams had informal characteristics in the process of increasing the performance of startup virtual teams. Meanwhile, the virtual system provided support at the team level of maturity.
Interpersonal Processes	<ul style="list-style-type: none"> • Organize Get-To-Know-Each-Other (1.3): Little information about team members, and interaction limited between one and another. • Agree Rules (1.8): Informal agreement. • Set Goals (1.9): Consistent between team goals and members, integrated. • Give and Receive Feedback (2.3): Periodic reciprocity for leaders and team, performed repeatedly and in a structured fashion, with basic information which was documented. 	<ul style="list-style-type: none"> • “Shared”: activity, knowledge, backup, evaluate, openness. • “Tolerance”: appreciate, empathy, limit. 	High degree of reciprocity as well as agreement on work methods, in the form of the themes “shared” and “tolerance”, so that there was compatibility between team and members personal goals.
Task-Related Processes	<ul style="list-style-type: none"> • Perform Task-Management (1.8): Simple division of tasks • Organize Decision-Making (1.8): Low level of involvement from members. • Conduct Meeting Management (1.5): Meeting structures and times informal. • Define Information Management (1.9): Documents managed simply and providing access to all members. 	<ul style="list-style-type: none"> • Meeting schedules, work times and work flow varied. • Employed video call, chat, phone call, and cloud system software document management. • Startups succeeded in enduring • Themes of “aware” and “responsive”. 	Team processes related to work tasks informal, software simple. Teams had the themes of “aware” and “responsive”, aimed at businesses surviving (business survival).
Influencing Area	<ul style="list-style-type: none"> • Give Rewards and Recognitions (1.5): Implemented, not as yet documented. • Engage in Trust-Building (1.3): Knowing members outside meeting agendas. • Arrange Ramping-Down (1.4): Finalize relations between team members through informal activities. 	<ul style="list-style-type: none"> • Mixed virtual. • Multirole, simple structures • Emergent leader. • Theme “shared”. 	Trust illustrated through introductions and farewells take place informally, outside of virtual meetings.

Receive Feedback, with the indicator processes performed repeatedly, from the basic information already documented. Convergence of the qualitative and quantitative data also occurred in the connection of duties which appeared at the basic level of maturity in such aspects as Perform Task-Management, Conduct Meeting Management, Give Rewards and Recognitions, as well as Define Information Management. This was proven in the qualitative data, where the virtual system supported the virtual interaction of the teams through media

yang dilakukan secara berulang dengan informasi dasar yang sudah didokumentasikan. Konvergensi data kualitatif dan data kuantitatif juga terjadi pada hubungan tugas yang tampak pada level kematangan *basic* dalam aspek seperti *Perform Task-Management, Conduct Meeting Management, Give Rewards and Recognitions*, serta *Define Information Management*. Hal ini terbukti pada data kualitatif, ketika *virtual system* mendukung interaksi virtual tim melalui perangkat media, alur kerja, dan waktu kerja yang beragam. *Virtual system*

Tabel 8
Integrasi Hasil Penelitian

Tema	Data Kuantitatif	Data Kualitatif	Temuan
Level Kematangan	<ul style="list-style-type: none"> 10 dari 11 aspek pada level kematangan <i>basic</i>. Terdapat perbedaan level kematangan tim yang signifikan antara sektor “Pembayaran” dan sektor “Lainnya” (<i>Analysis of Variance [ANOVA]; p < 0,05</i>). 	<ul style="list-style-type: none"> Interaksi tim bersifat/ber tema “<i>shared</i>”, “<i>tolerance</i>”, “<i>aware</i>”, “<i>responsive</i>”. <i>Virtual system</i> beragam. <i>Mixed virtual</i>. 	Tim virtual <i>startup</i> bersifat informal . Dalam proses peningkatan performansi tim virtual <i>startup</i> . Sementara <i>virtual system</i> memberikan dukungan pada level kematangan tim.
Interpersonal Processes	<ul style="list-style-type: none"> <i>Organize Get-To-Know-Each-Other</i> (1,3): Sedikit informasi mengenai anggota tim, dan interaksi yang terbatas satu sama lain. <i>Agree Rules</i> (1,8): Kesepakatan informal. <i>Set Goals</i> (1,9): Selaras antara tujuan tim dan anggota, terintegrasi. <i>Give and Receive Feedback</i> (2,3): Timbal balik secara berkala untuk pemimpin dan tim, dilakukan secara berulang dan terstruktur dengan informasi dasar yang didokumentasikan. 	<ul style="list-style-type: none"> “<i>Shared</i>”: <i>activity, knowledge, backup, evaluate, openness</i>. “<i>Tolerance</i>”: <i>appreciate, empathy, limit</i>. 	Timbal balik yang tinggi serta kesepakatan cara kerja berupa tema “ <i>shared</i> ” dan “ <i>tolerance</i> ” sehingga adanya keselarasan antara tujuan tim dan personal anggota.
Task-Related Processes	<ul style="list-style-type: none"> <i>Perform Task-Management</i> (1,8): Pembagian tugas sederhana. <i>Organize Decision-Making</i> (1,8): Keterlibatan rendah dari anggota. <i>Conduct Meeting Management</i> (1,5): Struktur <i>meeting</i> dan waktu informal. <i>Define Information Management</i> (1,9): Dokumen dikelola sederhana dan memberikan akses pada seluruh anggota. 	<ul style="list-style-type: none"> Jadwal <i>meeting</i>, waktu kerja, dan alur kerja beragam. Menggunakan perangkat <i>video call, chat, phone call</i>, dan <i>cloud system</i> untuk pengelolaan dokumen. <i>Startup</i> berhasil bertahan. Tema “<i>aware</i>” dan “<i>responsive</i>”. 	Proses tim yang berkaitan dengan tugas kerja bersifat informal, perangkat sederhana. Tim memiliki tema “ <i>aware</i> ” dan “ <i>responsive</i> ” yang mengarah pada bisnis bertahan (<i>business survival</i>).
Influencing Area	<ul style="list-style-type: none"> <i>Give Rewards and Recognitions</i> (1,5): Diimplementasikan, belum terdokumentasikan. <i>Engage in Trust-Building</i> (1,3): Mengenal anggota di luar agenda <i>meeting</i>. <i>Arrange Ramping-Down</i> (1,4): Mengakhiri hubungan di antara anggota tim melalui aktivitas secara informal. 	<ul style="list-style-type: none"> <i>Mixed virtual</i>. <i>Multirole</i>, struktur sederhana. <i>Emergent leader</i>. Tema “<i>shared</i>”. 	<i>Trust</i> digambarkan melalui perkenalan dan perpisahan terjadi informal, di luar <i>meeting</i> virtual.

equipment, work flow, and varied work times. Virtual system can support team interaction, as seen from the significant levels of maturity between the sectors of “Disbursement” and “Others”. The sector of “Disbursement” had an increase in investment and the number of downloads and their use, during the pandemic, and this made it possible for the “Disbursement” sector to have more resources for system requirements and numbers of employees (Fu & Mishra, 2020; 2021; Keogh & Johnson, 2021).

dapat mendukung interaksi tim, seperti terlihat dari perbedaan level kematangan yang signifikan antara sektor “Pembayaran” dan sektor “Lainnya”. Sektor “Pembayaran” memiliki peningkatan investasi dan jumlah pengunduhan dari pengguna selama pandemi, dan hal ini memungkinkan sektor “Pembayaran” untuk memiliki lebih banyak sumber daya untuk keperluan sistem dan jumlah karyawan (Fu & Mishra, 2020; 2021; Keogh & Johnson, 2021).

The aspects with the lowest levels of maturity of interaction in the startup virtual teams were those of Engage in Trust-Building and Organize Get-To-Know-Each-Other, which showed basic levels of maturity. Of the 156 startup virtual teams, 38% indicated an undefined level of maturity in the aspect Engage in Trust-Building. Besides this, 32% also showed an undefined level of maturity in the aspect Organize Get-To-Know-Each-Other. This meant that the majority of the members of the startup virtual teams had not as yet performed the processes of the aspects Engage in Trust-Building and Organize Get-To-Know-Each-Other, nor perhaps performed these processes with all of the other members. Besides this, the aspect Arrange Ramping-Down, with a basic maturity level (score of 1.4) illustrated the ending of informal relationships. These findings showed data which was divergent from the qualitative data, which described the startup virtual teams as being sharing (in the meaning giving rise to the theme “shared”), together with having equal status between team members, as indicated by them having multiple roles. Besides this, the presence of emergent leaders showed that anyone at all could, informally, take the role of leader.

Divergent data between the aspects Organize Get-To-Know-Each-Other, Engage in Trust-Building, as well as Arrange Ramping-Down, and the theme “shared” (as well as the results of the qualitative data concerning *multirole* and *emergent leaders*) were answered by the existence of the mixed virtual context, that is the teams which had been formed face-to-face prior to using virtual interaction and/or interacting periodically face-to-face, and virtually, during the pandemic. It was predicted that more instances of getting to know one another occurred in face-to-face meetings, even though what was measured in the processes of the aspect Organize Get-To-Know-Each-Other and Engage in Trust-Building was virtual meetings. This meant that, although the quantitative data showed that the formation of trust (the aspect of Engage in Trust-Building) within the team, on a virtual basis, was still at the maturity level of basic, or of an informal nature; the startup virtual teams had low feelings of mutual trust, because trust could already be formed through non-virtual interaction.

Discussion

The results of this study showed that, in general, the startup virtual teams which endured during the

Aspek dengan tingkat kematangan yang paling rendah dari interaksi tim virtual *startup* adalah *Engage in Trust-Building* dan *Organize Get-To-Know-Each-Other* dengan tingkat kematangan *basic*. Dari 156 tim virtual *startup*, 38% menunjukkan aspek *Engage in Trust-Building* dengan tingkat kematangan *undefined*. Selain itu, 32% juga menunjukkan aspek *Organize Get-To-Know-Each-Other* dengan tingkat kematangan *undefined*. Hal ini berarti bahwa mayoritas anggota tim virtual *startup* belum melaksanakan proses aspek *Engage in Trust-Building* dan *Organize Get-To-Know-Each-Other*, atau mungkin tidak dijalankan dengan seluruh anggota. Selain itu, aspek *Arrange Ramping-Down* dengan tingkat kematangan *basic* (skor 1,4) menggambarkan pengakhiran hubungan secara informal. Temuan ini menunjukkan data divergen dengan data kualitatif yang menggambarkan bahwa tim virtual *startup* saling berbagi (dalam arti memunculkan tema “*shared*”), serta adanya kesetaraan antara anggota tim yang tergambar melalui peran yang jamak. Selain itu, adanya *emergent leader* menunjukkan bahwa siapapun bisa berperan secara informal sebagai *leader*.

Data divergen antara aspek *Organize Get-To-Know-Each-Other*, *Engage in Trust-Building*, serta *Arrange Ramping-Down* dengan data tema “*shared*” (serta hasil data kualitatif mengenai *multirole* dan *emergent leader*) terjawab dengan adanya konteks *mixed virtual*, yaitu tim telah terbentuk secara tatap muka sebelum dilakukan interaksi virtual dan/atau berinteraksi secara berkala secara tatap muka dan virtual di masa pandemi. Perkenalan secara lebih mendalam diprediksikan terjadi pada saat tatap muka, walaupun yang diukur pada proses aspek *Organize Get-To-Know-Each-Other* dan *Engage in Trust-Building* adalah perkenalan secara virtual. Hal ini berarti walaupun data kuantitatif menunjukkan bahwa pembentukan *trust* (aspek *Engage in Trust-Building*) tim secara virtual masih pada level kematangan *basic* atau bersifat informal; tim virtual *startup* tidak memiliki rasa saling percaya yang rendah, karena *trust* bisa saja sudah terbentuk dalam interaksi non-virtual.

Diskusi

Hasil studi ini menunjukkan bahwa secara umum tim virtual *startup* yang bertahan di masa pandemi

pandemic were at the basic level of maturity, meaning that these teams had informal virtual interactions. The average of the scores of the Virtual Team Maturity Model (VTMM) Assessment of the 156 startup virtual teams showed that 10 of the 11 aspects had interactions at the basic level of maturity, meaning that their productivity had begun to increase, conflict had decreased, and the members had begun to build trust and deepen their relationships. At the basic level of maturity, startup virtual teams were still interacting informally, wherein the equipments to support the team processes had not yet been fully implemented, and not all of the team processes had been documented. This situation was in accord with the statement by Daft (2010), that, generally, startups were still in informal forms, were unstructured, and were fluid. This had occurred because startups had the principle goal of surviving, and the focus of entrepreneurs on the business establishment stage would have been divided, besides the facts of limited time and resources, and greater economic risks. The structure of startup virtual teams requires facilitation by informal interaction, because trust is an important communications aspect (within the aspect Engage in Trust-Building) and may be increased virtually, by way of communication outside the context of work (Friedrich, 2017).

The definition of informal was described further through a number of participant statements, in their interviews, which showed that there existed the themes “shared”, “tolerance”, “aware”, and “responsive” in their interpersonal processes, compared to how the aspects pertaining to tasks, in regard to the work and the systems. Openness and honest communications (Meixner, 2018), together with shared understanding (Mulyani, 2016) may support the emergence of trust and cooperation, in virtual teams. Through the themes “shared” and “tolerance”, as well as the aspect Give and Receive Feedback, the possibility is that conflict may decrease, because of the existence of feelings of togetherness, within the leadership and the team members in comprehending the position of the team. This, further on, would help the team to find a common goal, which would have an influence on an increase in work energy and motivation for cooperation as a team (Friedrich, 2017; Hoch & Dulebohn, 2017). Several previous studies also indicated that startup teams had the characteristics of heterogeneity (Muñoz-Bullon et al., 2015; Tzabbar & Margolis, 2017). This heterogeneity would support the performance of the

berada pada level kematangan *basic*, yang berarti tim berinteraksi virtual secara informal. Rerata skor *Virtual Team Maturity Model (VTMM) Assessment* dari 156 tim virtual *startup* menunjukkan bahwa 10 dari 11 aspek memiliki interaksi pada level kematangan *basic*, yang berarti produktivitas tim mulai meningkat, konflik menurun, dan anggota tim mulai membangun kepercayaan dan memperdalam hubungannya. Pada level kematangan *basic*, tim virtual *startup* masih banyak beraktivitas secara informal, ketika perangkat untuk mendukung proses tim belum sepenuhnya diimplementasikan dan segala proses tim belum didokumentasikan. Kondisi ini sesuai dengan pernyataan oleh Daft (2010), bahwa umumnya *startup* memang masih dalam bentuk informal, tidak terstruktur, dan *fluid*. Hal ini terjadi karena *startup* memiliki tujuan utama untuk bertahan, dan fokus pengusaha pada tahap membangun bisnis akan terpecah, di samping waktu dan sumber daya yang terbatas serta resiko ekonomi yang lebih besar. Struktur tim virtual *startup* memang perlu difasilitasi dengan interaksi informal, karena *trust* merupakan aspek komunikasi yang penting (dalam aspek *Engage in Trust-Building*) dan dapat ditingkatkan secara virtual dengan cara komunikasi di luar konteks pekerjaan (Friedrich, 2017).

Definisi informal secara lebih lanjut digambarkan dari sejumlah pernyataan partisipan dalam wawancara, yang menunjukkan adanya tema “*shared*”, “*tolerance*”, “*aware*”, dan “*responsive*” dalam proses interpersonalnya, dibandingkan bagaimana aspek yang berkaitan dengan tugas sehubungan dengan pekerjaan dan sistem. Keterbukaan dan komunikasi yang jujur (Meixner, 2018), serta *shared understanding* (Mulyani, 2016) dapat mendukung munculnya kepercayaan dan kerjasama pada tim virtual. Melalui tema “*shared*” dan “*tolerance*”, serta aspek *Give and Receive Feedback*, kemungkinan konflik akan menurun karena adanya rasa kebersamaan pada pemimpin dan anggota tim dalam memahami posisi tim. Hal ini selanjutnya akan membantu tim menemukan tujuan umum yang berpengaruh pada peningkatan energi dan motivasi kerja bersama sebagai tim (Friedrich, 2017; Hoch & Dulebohn, 2017). Sejumlah studi sebelumnya juga menunjukkan bahwa tim *startup* bersifat heterogen (Muñoz-Bullon et al., 2015; Tzabbar & Margolis, 2017). Heterogenitas ini akan

team, when accompanied by interaction involving sharing with each other when accepting rules (the aspect of *Agree Rules*) and the mutual appreciation between members (Algesheimer et al., 2011).

The virtual system could support the way the virtual interaction in the team functioned effectively. This was also to be seen in the findings of the Analysis of Variance (ANOVA), which showed that the “Disbursement” sector had a higher level of maturity in its startup virtual teams, compared to other industry sectors. The “Disbursement” sector experienced an increase of 21-26% in the number of downloads of financial and investment applications (Keogh & Johnson, 2021). The cause of this was the adoption of digital finance, which assisted many households and businesses, as well as reducing the impacts of health and socio-economic risks arising from the effects of the pandemic (Fu & Mishra, 2020; 2021). This situation increased the resource capabilities of startups, such as income, amount of recruiting, and other operational activities in the businesses (Fu & Mishra, 2020; 2021). These financial matters would have reciprocal relationships with the human resources and social resources of startup founders, when the interaction between the two of them would jointly have impacts on the success of the startups (Keogh & Johnson, 2021). This explains how the “Disbursement” sector has more mature virtual interaction, compared to other sectors, because the “Disbursement” sector has greater resources to be shared (refer to the theme “shared”).

Awareness (refer to the aspect “aware”) was important, in reducing the possibility of the emergence of preconceptions, because of common differences. Sensitivity was an important matter during the pandemic, because it was associated with psychosocial stressor situations, including threats to personal health and the health of those closest to team members (Shevlin et al., 2020; Taylor, 2019), as well as threats to the growth of the startup, which brought about the necessity for sensitivity related to business opportunities (Kuckertz et al., 2020). Responses by team members may have occurred more rapidly in virtual interactions, because technology has shrunk geographical limitations. Technology provided flexibility and communications without barriers (Darmawan & Wahyuni, 2019), so that individuals obtained the same access, despite being in different locations

mendukung performa tim, apabila disertai dengan interaksi yang saling berbagi selama terdapat aturan (aspek *Agree Rules*) dan saling menghargai antar anggota (Algesheimer et al., 2011).

Virtual system dapat mendukung bagaimana interaksi virtual dalam tim berjalan secara efektif. Hal ini juga terlihat dari temuan *Analysis of Variance (ANOVA)* yang menunjukkan bahwa sektor “Pembayaran” memiliki level kematangan tim virtual *startup* yang lebih tinggi dibanding sektor industri lainnya. Sektor “Pembayaran” mengalami peningkatan 21-26% jumlah pengunduh aplikasi keuangan serta investasi (Keogh & Johnson, 2021). Penyebabnya adalah adopsi keuangan secara digital yang menolong banyak rumah tangga dan perusahaan, serta mengurangi dampak resiko kesehatan dan sosial ekonomi atas efek dari pandemi (Fu & Mishra, 2020; 2021). Kondisi ini meningkatkan kemampuan sumber daya dari *startup*, seperti pendapatan, jumlah perekrutan, dan kegiatan operasional lain dalam perusahaan (Fu & Mishra, 2020; 2021). Perihal finansial ini akan berhubungan secara timbal balik dengan sumber daya manusia dan sumber daya sosial dari pendiri *startup*, ketika interaksi keduanya secara bersamaan akan berdampak pada kesuksesan *startup* (Keogh & Johnson, 2021). Hal ini menjelaskan bagaimana sektor “Pembayaran” memiliki interaksi virtual yang lebih matang dibandingkan sektor lainnya, karena sektor “Pembayaran” memiliki lebih banyak sumber daya untuk dibagi (mengacu pada tema “shared”).

Kesadaran (mengacu pada tema “aware”) penting untuk mengurangi kemungkinan munculnya prasangka karena perbedaan satu sama lain. Kepekaan merupakan hal yang penting di masa pandemi, karena terasosiasi dengan kondisi stresor psikososial yang termasuk ancaman kesehatan diri sendiri dan orang terdekat (Shevlin et al., 2020; Taylor, 2019), serta ancaman pada pertumbuhan *startup*, yang menyebabkan perlunya kepekaan sehubungan dengan peluang bisnis (Kuckertz et al., 2020). Respon anggota tim dapat terjadi lebih cepat secara virtual karena teknologi memperkecil adanya keterbatasan geografis. Teknologi memberikan fleksibilitas dan komunikasi tanpa hambatan (Darmawan & Wahyuni, 2019), sehingga individu dapat memperoleh akses yang sama meskipun berada pada lokasi yang berbeda (Friedrich, 2017). *Startup*

(Friedrich, 2017). Startups were identical with other industries and their situations, which were full of uncertainty and extreme situations (Hart, 2012; Ries, 2011). Pandemic conditions, which were identical with uncertainty, confusion, and pressure situations (Taylor, 2019) also added burdens to this situation, so that perceptive responses would support quicker solutions to problems and facilitate organizations having greater resilience, after the pandemic crisis (Kim, 2020).

Informal interactions between the members of startup virtual teams worked effectively because the teams interacted in a mixed virtual fashion, which was the virtual system applied by startup virtual teams in Indonesia, so as to be able to survive during the pandemic, because of the fact that businesses needed to continue to function, by obeying health protocols. Mixed virtual interactions, which in the context of this study took the form of face-to-face interactions prior to the pandemic, have shifted to being virtual during the pandemic, or to periodical face-to-face meetings at specific times during the pandemic, conducted together with virtual interaction. The conditions of the teams were still informal, where technological equipment was not as yet satisfactory to support mature level virtual interaction (Friedrich, 2017). So, from this, face-to-face interaction was needed to reduce limitations (Andres, 2002; Blenke, 2013; Hardwick et al., 2012; Kirkman et al., 2004). Mixed virtual interaction occurred during the pandemic, because of the spread of the virus, caused by human networks, brought about the necessity for communicational alternatives in businesses. However, because the task-related processes in startups were still simple in nature, mixed virtual interaction was able to be used as the solution for startups to be able to survive, during the pandemic.

Based upon the qualitative data, mixed virtual interactions were found to have occurred with all the participants in the interviews, or at least participants had met with the other members of the teams prior to fully interacting virtually during the pandemic. Mixed virtual interaction is categorized as the virtual system applied by startups. As examples, there were participants who had conducted meetings at the beginning, at the time of onboarding program, or who had held direct meetings for 45 minutes per week. Face-to-face meetings raised the possibility for greater exchange of information, particularly in the sense of the social presence (such as verbal signals, facial expressions, eye-to-eye contact,

identik dengan industri dan kondisinya yang penuh ketidakpastian dan situasi ekstrim (Hart, 2012; Ries, 2011). Kondisi pandemi yang identik dengan ketidakpastian, kebingungan, dan keadaan yang mendesak (Taylor, 2019) juga menambah beban kondisi tersebut, sehingga reaksi yang tanggap akan mendukung penyelesaian masalah dengan lebih cepat dan memudahkan organisasi untuk memiliki *resilience* lebih tinggi setelah krisis di masa pandemi (Kim, 2020).

Interaksi informal pada tim virtual *startup* berjalan efektif karena tim berinteraksi secara *mixed virtual*, yang merupakan *virtual system* yang diterapkan oleh tim virtual *startup* di Indonesia agar dapat bertahan di masa pandemi, karena fakta bahwa bisnis perlu tetap berjalan dengan mematuhi protokol kesehatan. *Mixed virtual* dalam konteks studi ini dapat berupa interaksi tatap muka pada tim sebelum berpindah secara virtual di masa pandemi atau interaksi tatap muka secara berkala di waktu tertentu semasa pandemi yang dilakukan bersamaan dengan interaksi virtual. Kondisi tim masih informal, ketika perangkat teknologi belum memadai untuk mendukung interaksi virtual yang matang (Friedrich, 2017). Maka dari itu, interaksi tatap muka diperlukan untuk mengurangi keterbatasan (Andres, 2002; Blenke, 2013; Hardwick et al., 2012; Kirkman et al., 2004). *Mixed virtual* umum terjadi di masa pandemi, karena penyebaran virus yang disebabkan oleh jaringan manusia menyebabkan perlunya alternatif komunikasi dalam bisnis. Namun, karena *task-related process* dalam *startup* masih bersifat sederhana, *mixed virtual* dapat menjadi solusi untuk *startup* dapat bertahan selama pandemi.

Berdasarkan data kualitatif, *mixed virtual* ditemukan pada semua partisipan wawancara, atau setidaknya partisipan pernah bertemu dengan anggota tim lainnya sebelum sepenuhnya berinteraksi secara virtual di masa pandemi. *Mixed virtual* dikategorikan sebagai *virtual system* yang diterapkan oleh *startup*. Sebagai contoh adalah partisipan melakukan pertemuan di awal ketika *onboarding program* atau dalam pertemuan langsung selama 45 menit dalam seminggu. Pertemuan tatap muka meningkatkan kemungkinan pertukaran informasi yang lebih banyak, khususnya pada *social presence* (seperti isyarat verbal, ekspresi wajah, tatapan mata, *gesture*, *posture*,

gestures, posture, proximity, dan back-channeling cues; Andres, 2002). The relevance of expressions during the making of statements, mutual gaze, along with back-channeling, with utterances such as “Mmm” and “Okay” offer more signs of attentiveness and agreement, as well as support, between members. Social presence did not appear in the virtual interaction performed by the startup virtual teams, as was seen from the findings of the limitations on information requiring tolerance from the team members during their virtual interactions. From this, the startups made the decision that mixed virtual interaction could be employed, to minimize limitations in the exchange of information.

The participants also indicated mixed virtual relationships, in the form of meetings prior to the formation of the startup virtual teams, taking into account that the founders tended to have teams based upon the relations they possessed (for example there were relations with startup competitors, or with fellow classmates at universities.). In the beginnings of the formation, the teams were founded by lead entrepreneurs, who then sought co-founders through interpersonal attraction, from relationships based upon similar interests, a tendency towards mutual complementation, similarities one to the other, and relationships based upon friendship circles (Lazar et al., 2017). A number of previous studies showed that face-to-face interactions at the early stages of the formation of virtual teams were important matters for the successes of the building of deeper relationships (Hardwick et al., 2012; Maznevski & Chudoba, 2000; Peters & Manz, 2007). Face-to-face and virtual interactions, in the early stages, built complementary relationships in the exchange of information for each member's comprehension of the other team members, although the priority and weighting was higher for face-to-face interactions (Hardwick et al., 2012). Once the relationships had been formed, and the legalization of, or the regulations for, the team had been established, virtual media would speed-up interactions with specific information. The teams would then be able to interact in a mixed virtual fashion, to continue the relationships already formed. This statement was in accord with the cases of the startup virtual teams in this study, which formed deep relationships informally, outside their virtual meetings.

Table 9 shows the study contrasts, between the groups who interacted in a fully virtual fashion, and those who held face-to-face meetings. Based upon

proximity, dan *back-channeling cues*; Andres, 2002). Relevansi ekspresi dengan pernyataan, *mutual gaze*, serta *back-channeling* dengan kata-kata seperti “Mmm” dan “Okay” akan memberikan atensi lebih, serta dukungan dan persetujuan antar anggota. *Social presence* tidak tampak pada interaksi virtual yang dilakukan oleh tim virtual *startup*, seperti terlihat dari adanya temuan keterbatasan informasi yang perlu ditoleransi oleh anggota tim ketika berinteraksi virtual. Maka dari itu, *startup* mengambil keputusan bahwa berinteraksi secara *mixed virtual* dapat digunakan untuk untuk meminimalisir keterbatasan dalam pertukaran informasi.

Partisipan juga menunjukkan hubungan *mixed virtual* berupa perkenalan sebelum tim virtual *startup* terbentuk, mengingat *founder* cenderung memilih tim berdasarkan relasi yang dimilikinya (sebagai contoh adalah relasi pada kompetisi *startup* atau relasi sebagai teman perkuliahan). Pada masa pembentukan awal, tim didirikan oleh *lead entrepreneur*, yang kemudian mencari *co-founders* melalui *interpersonal attraction* dari relasi yang berdasarkan pada ketertarikan yang sama, kecenderungan untuk saling melengkapi, kemiripan satu sama lain, dan relasi berdasarkan lingkup pertemanan (Lazar et al., 2017). Sejumlah studi sebelumnya menunjukkan bahwa interaksi tatap muka di awal pembentukan tim virtual merupakan hal yang penting untuk kesuksesan membangun hubungan yang lebih mendalam (Hardwick et al., 2012; Maznevski & Chudoba, 2000; Peters & Manz, 2007). Interaksi tatap muka dan virtual pada tahap awal membangun hubungan akan saling melengkapi dalam pertukaran informasi guna pemahaman antar anggota tim, walaupun prioritas dan bobot lebih tinggi untuk interaksi tatap muka (Hardwick et al., 2012). Apabila hubungan telah terbentuk dan legalisasi atau aturan tim telah ditetapkan, media virtual akan mempercepat interaksi dengan informasi yang spesifik. Tim akan dapat berinteraksi secara *mixed virtual* untuk melanjutkan hubungan yang terbentuk tersebut. Pernyataan tersebut sesuai dengan tim virtual *startup* pada studi ini yang membentuk hubungan mendalam di luar pertemuan virtual secara informal.

Tabel 9 menunjukkan perbandingan studi pada kelompok yang berinteraksi sepenuhnya secara virtual dan kelompok yang menerapkan pertemuan

a number of previous studies, it may be seen that mixed virtual communications may have been the choice which balanced relations (through face-to-face meetings) and task management (through virtual interaction). These previous studies stated that interactions mediated by computers tended to be more directed towards tasks (such as business tasks) and not to be so friendly (compared with interactions at the time of face-to-face meetings; Ebrahim et al., 2009). Face-to-face meetings were good media for getting to know one another, and for a number of processes related to interaction, whereas virtual interaction gave a form of work coordination, not limited by space and time, so that they could be more flexible, with the potential for heterogeneity directed towards innovation.

Mixed virtual interaction in a startup showed that, during this pandemic, teams no longer interacted fully virtually, or fully face-to-face. Virtual teams and face-to-face teams were difficult to separate (Kirkman et al., 2004). Virtual interaction was described as a continuum range, that is it began with the most frequent form of interaction being virtual interaction, through to the least common form being face-to-face. Although several prior studies have stated that virtual teams may not meet face-to-face (Friedrich, 2017), there is a number of other studies showing that virtual teams continue to hold face-to-face meetings (even though the interaction using technology is still more dominant; Maznevski & Chudoba, 2000). An example would be a startup virtual team which, although at this time was interacting purely virtually, had previously held periodical face-to-face meetings, without counting geographical limitations. The differences between face-to-face teams and virtual teams were increasingly biased and divergent, because of the difficulties in finding a face-to-face team which had not used technology to support communications, and a virtual team which had never conducted direct, face-to-face meetings (Mulyani, 2016).

Limitations

The limitations in this study were related to the participants who were representatives of startup virtual teams. The characteristics of the startup virtual teams in the study were that they had only a few members, showed simple organizational structures, had multirole organization, and still had informal work structures. Besides this, the situations of the

startup were also related to the participants who were representatives of startup virtual teams. Based on a number of previous studies, it can be seen that mixed virtual communications may have been the choice which balanced relations (through face-to-face meetings) and task management (through virtual interaction). These previous studies stated that interactions mediated by computers tended to be more directed towards tasks (such as business tasks) and not to be so friendly (compared with interactions at the time of face-to-face meetings; Ebrahim et al., 2009). Face-to-face meetings were good media for getting to know one another, and for a number of processes related to interaction, whereas virtual interaction gave a form of work coordination, not limited by space and time, so that they could be more flexible, with the potential for heterogeneity directed towards innovation.

Interaksi *mixed virtual* pada *startup* menunjukkan bahwa di masa pandemi, tim tidak lagi hanya sepenuhnya berinteraksi secara virtual atau tatap muka. Tim virtual dan tim tatap muka sulit dipisahkan (Kirkman et al., 2004). Interaksi virtual digambarkan sebagai rentang kontinum, yaitu mulai dari yang paling sering berinteraksi secara virtual hingga yang paling jarang berinteraksi secara virtual. Meskipun beberapa studi sebelumnya menyatakan bahwa tim virtual tidak dapat bertemu secara tatap muka (Friedrich, 2017), ada sejumlah studi lain yang menunjukkan bahwa tim virtual tetap melakukan pertemuan tatap muka (walaupun interaksi dengan teknologi tetap lebih dominan; Maznevski & Chudoba, 2000). Sebagai contoh adalah tim virtual *startup* yang walaupun pada saat ini telah sepenuhnya berinteraksi virtual, telah melakukan pertemuan tatap muka secara periodik sebelumnya, tanpa memperhitungkan keterbatasan geografis. Perbedaan antara tim tatap muka dengan tim virtual menjadi semakin bias karena sulitnya ditemukan tim tatap muka yang tidak menggunakan teknologi untuk mendukung komunikasi dan tim virtual yang belum pernah melakukan pertemuan tatap muka secara langsung (Mulyani, 2016).

Keterbatasan

Keterbatasan studi ini sehubungan dengan partisipan yang merupakan perwakilan dari tim virtual *startup*. Karakteristik tim virtual *startup* dalam studi ini adalah tim virtual *startup* dengan jumlah anggota sedikit, yang menunjukkan struktur organisasi yang sederhana, *multirole*, serta sistem kerja yang masih informal. Selain itu, kondisi tim

Table 9
Comparisons Between Virtual Teams and Face-to-Face Teams

	Virtual Interaction	Face-to-Face Interaction
Interpersonal Process	<ul style="list-style-type: none"> The study indicated that 50-80% of communication was non-verbally based, such as through body-language and volume of voices. This indicated the existence of informational losses in virtual communications (Friedrich, 2017). Trust was an important element in the interpersonal relations of the team, which was built at the beginning of the team formation (Peters & Manz, 2007). Startup virtual teams need greater time during the two initial phases, i.e., forming and storming, based upon Tuckman's development theories (Corbitt et al., 2004; Johnson et al., 2002). 	<ul style="list-style-type: none"> Face-to-face meetings can become moderators for the performance of virtual teams. The number of face-to-face interactions can become a measure of the team performance (Kirkman et al., 2004). Face-to-face meetings will increase effectiveness, quality of information and trust, compared to communicating fully virtually (Blenke, 2013). Face-to-face meetings can provide a wealth of information and feelings are socially-oriented, so that this can increase quality (Andres, 2002). Increase in trust of virtual teams emerges because of the openness and honesty shown repeatedly in direct meetings (Ebrahim et al., 2009).
Task-Related Process	<ul style="list-style-type: none"> Software, in virtual collaboration needs to be aligned with the competence of the members. Stress may occur in the team if there is a problem with the use of software (Friedrich, 2017). Businesses may employ the best individuals without being limited by physical location (Ebrahim et al., 2009). The virtual environment improves communication, builds networks, builds cooperation to penetrate organizational boundaries, flexibility of working hours and work design, and give quicker response times in processing work tasks (Mulyani, 2016). 	<ul style="list-style-type: none"> Opportunities to share information, related to work or not (Ebrahim et al., 2009). Opportunities for direct and joint coordination, including direct monitoring and speedy responses (Ebrahim et al., 2009). Limitations to access to information and interaction outside of the office location.
Influencing Area	<ul style="list-style-type: none"> Teams are evaluated to have efficiency from the viewpoint of time, travel costs and the elimination of asymmetry with access to the expertise required to form a team (Ebrahim et al., 2009). 	<ul style="list-style-type: none"> Cultural homogeneity minimalises unsuitability. On the other hand, it also minimalises the possibility of new innovation (Ebrahim et al., 2009).

startup virtual teams in the study were that they were able to conduct mixed virtual meetings, and it was not certain whether these conditions could be applied to other startup virtual teams. From this, it is necessary that other studies related to the findings of this study be conducted on other startup virtual teams, whose backgrounds and conditions are different.

Suggestions

The findings of this study showed that the differences between face-to-face and virtual teams is increasingly biased and divergent, because face-to-face teams continue to use technology to support communications, and virtual teams have used, or periodically use, direct face-to-face meetings. Besides

virtual *startup* pada studi ini yang mampu melakukan *mixed virtual* merupakan kondisi yang belum tentu dapat diaplikasikan pada tim virtual *startup* lainnya. Maka dari itu, perlu dilakukan studi sehubungan dengan tingkat aplikasi temuan studi ini pada tim virtual *startup* dengan latar belakang dan kondisi yang berbeda.

Saran

Temuan studi ini menunjukkan bahwa perbedaan antara tim tatap muka dengan tim virtual menjadi semakin bias, karena tim tatap muka tetap menggunakan teknologi untuk mendukung komunikasi dan tim virtual pernah atau secara berkala melakukan pertemuan tatap muka secara

Tabel 9
Perbandingan Tim Virtual dan Tim Tatap Muka

	<i>Virtual Interaction</i>	<i>Face-to-Face Interaction</i>
<i>Interpersonal Process</i>	<ul style="list-style-type: none"> • Studi menunjukkan bahwa 50-80% dari komunikasi berdasarkan non-verbal, seperti bahasa tubuh dan volume suara. Hal ini menunjukkan adanya kehilangan informasi dalam komunikasi virtual (Friedrich, 2017). • <i>Trust</i> merupakan unsur penting dalam interpersonal tim yang dibangun di tahap awal formasi tim (Peters & Manz, 2007). • Tim virtual <i>startup</i> memerlukan waktu lebih lama pada dua fase awal yaitu <i>forming</i> dan <i>storming</i> berdasarkan teori perkembangan Tuckman (Corbitt et al., 2004; Johnson et al., 2002). 	<ul style="list-style-type: none"> • Pertemuan tatap muka dapat menjadi moderator bagi performansi tim virtual. Jumlah interaksi tatap muka dapat menjadi ukuran performa tim (Kirkman et al., 2004). • Pertemuan tatap muka akan meningkatkan efektivitas, kualitas informasi, dan <i>trust</i> lebih tinggi dibandingkan dengan sepenuhnya berkomunikasi virtual (Blenke, 2013). • Pertemuan tatap muka dapat memberikan kekayaan informasi dan perasaan ada secara sosial sehingga dapat meningkatkan kualitas (Andres, 2002). • Peningkatan kepercayaan pada tim virtual muncul karena keterbukaan dan kejujuran, yang dilakukan berulang dalam pertemuan langsung (Ebrahim et al., 2009).
<i>Task-Related Process</i>	<ul style="list-style-type: none"> • Perangkat lunak dalam kolaborasi virtual perlu menyesuaikan dengan kompetensi anggota. Stres dapat terjadi pada tim ketika terjadi permasalahan dalam penggunaan perangkat lunak (Friedrich, 2017). • Perusahaan dapat mempekerjakan individu terbaik tanpa dibatasi oleh lokasi fisik (Ebrahim et al., 2009). • <i>Virtual environment</i> meningkatkan komunikasi, membangun jaringan, membangun kerjasama menembus batasan organisasi (<i>organizational boundaries</i>), fleksibilitas jam kerja dan desain pekerjaan, dan respon waktu yang lebih cepat dalam mengerjakan tugas pekerjaan (Mulyani, 2016). 	<ul style="list-style-type: none"> • Kesempatan berbagi informasi berkaitan dengan pekerjaan atau tidak (Ebrahim et al., 2009). • Kesempatan koordinasi secara langsung, dan bersama-sama. Termasuk <i>monitoring</i> secara langsung serta respon dengan cepat (Ebrahim et al., 2009). • Keterbatasan dalam akses informasi dan interaksi di luar lokasi kantor.
<i>Influencing Area</i>	<ul style="list-style-type: none"> • Tim dinilai memiliki efisiensi dari segi waktu, biaya perjalanan, dan mengeliminasi kesenjangan (<i>lack</i>) terhadap akses pada tenaga ahli yang dibutuhkan untuk membentuk suatu tim (Ebrahim et al., 2009). 	<ul style="list-style-type: none"> • Kesamaan budaya dan latar belakang meminimalisir ketidakcocokan. Di lain sisi, juga meminimalisir kemungkinan inovasi baru (Ebrahim et al., 2009).

this, the findings of the study also were complementary, in that it was obvious that the two situations (virtual and face-to-face) complemented each other. From this, it would be as well if future studies conducted deeper analysis of the situations of virtual and face-to-face teams, related to a pandemic situation, which showed acceleration in the use of technology, so that virtual interaction and direct meetings become things which are normal to conduct in conjunction, one with the other.

Conclusion

This study showed that: (1) in general, the startup virtual teams which have held on during the

langsung. Selain itu, temuan studi juga melengkapi bahwa ternyata kedua kondisi tersebut (virtual dan tatap muka) adalah hal yang saling melengkapi. Maka dari itu, studi selanjutnya sebaiknya melakukan analisa lebih mendalam pada kondisi tim virtual dan tim tatap muka, sehubungan dengan kondisi pandemi yang menunjukkan akselerasi pada penggunaan teknologi, sehingga interaksi virtual dan pertemuan langsung menjadi sesuatu yang lumrah dilakukan secara berdampingan.

Simpulan

Studi ini menunjukkan bahwa: (1) secara umum, tim virtual *startup* yang bertahan di masa pandemi

pandemic were at the basic level of maturity, meaning the team interacted virtually and informally; and (2) it was also found that all startup virtual teams interacted in a mixed virtual fashion, meaning that the teams had interacted, or were interacting, virtually, together with occasionally holding face-to-face meetings. These two findings illustrated that startup virtual teams at the basic level of maturity were enough to build sustainable or surviving startups during the pandemic, as long as the interaction conducted was mixed virtual in nature. Mixed virtual interaction might become the solution for startups to build deeper relationships during a pandemic.

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berada pada tahap kematangan *basic*, yang berarti tim berinteraksi virtual secara informal; dan (2) ditemukan juga bahwa seluruh tim virtual *startup* berinteraksi secara *mixed virtual*, yang berarti tim pernah dan/atau sedang berinteraksi virtual bersamaan dengan sesekali pertemuan tatap muka. Kedua temuan ini menggambarkan bahwa tim virtual *startup* dengan level kematangan interaksi virtual yang *basic* adalah cukup untuk membuat *startup* bertahan di masa pandemi, selama interaksi yang dilakukan bersifat *mixed virtual*. *Mixed virtual* dapat menjadi solusi bagi *startup* untuk membangun hubungan yang lebih mendalam di masa pandemi.

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