LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT
Jl. Pawiyatan Luhur IV/1 Bendan Duwur Semarang 50234
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Unika SOEGIJAPRANATA

S U R A T T U G A S

Nomor : 01488//H.2/ST.LPPM/VII/2021

Kepala Lembaga Penelitian dan Pengabdian Kepada Masyarakat Universitas Katolik Soegijapranata Semarang dengan ini memberi tugas kepada :

Nama	:	Dr. Ir. Bernadeta Soedarini, MP	(Ketua)
		Prof. Dr. Ir. Budi Widianarko, MSc	(Anggota)
		Inneke Hantoro, S.TP.,MSc	(Anggota)
Status	:	Dosen Tetap Universitas Katolik Soegijapranata	
Tugas	:	Penelitian Kemendikbud Ristek tahun anggaran 2021 Skim PDUPT dengan judul **"Minimalisasi Risiko Kontaminasi SARS-CoV-2 pada Pangan Siap Santap yang Diperdagangkan Secara Daring berbasis Pengetahuan, Sikap dan Perilaku Para Aktor"**	
Waktu	:	18 Maret-16 November 2021	
Penyelenggara	:	Kemendikbud Ristek	
Lain-lain	:	Harap melaksanakan tugas dengan sebaik-baiknya dan penuh tanggung jawab serta memberikan laporan setelah selesai melaksanakan tugas.	

Demikian surat tugas ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Semarang, 31 Juli 2021
Kepala LPPM

UNIVERSITAS KATOLIK SOEGIJAPRANATA LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT

Dr. Berta Bekti Retnawati, MSi
NPP.058.1. 1998.219

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Unika SOEGIJAPRANATA

KONTRAK PENELITIAN
TAHUN 2021

ANTARA
KEPALA LPPM UNIKA SOEGIJAPRANATA
DENGAN
KETUA PENELITI PENERIMA HIBAH KEMENDIKBUD RISTEK
UNIKA SOEGIJAPRANATA
Nomor : 00869/H.2/LPPM/VII/2021

Pada hari ini Selasa, 13 (tiga belas) bulan Juli tahun dua ribu dua puluh satu, kami yang bertandatangan di bawah ini :

1. **Dr. Berta Bekti Retnawati, M.Si**, sebagai Kepala LPPM Universitas Katolik Soegijapranata Semarang, selanjutnya disebut sebagai **PIHAK PERTAMA**
2. **Dr. Ir. Soedarini, MP,** sebagai Ketua Peneliti, Skim : Penelitian Dasar Unggulan Perguruan Tinggi, dengan judul "**Minimalisasi Risiko Kontaminasi SARS-CoV-2 pada Pangan Siap Santap yang Diperdagangkan Secara Daring berbasis Pengetahuan, Sikap dan Perilaku Para Aktor**", selanjutnya disebut **PIHAK KEDUA**

PIHAK PERTAMA dan **PIHAK KEDUA** secara bersama-sama bersepakat mengikatkan diri dalam suatu Kontrak Penelitian, dengan ketentuan dan syarat sebagai berikut :

Pasal 1

Kontrak penelitian ini berdasarkan pada :

1. Peraturan Menteri Pendidikan dan Kebudayaan nomor 34 tahun 2020 tentang Organisasi dan Tata kerja Lembaga Layanan Pendidikan Tinggi :
2. Kontrak Antara Direktorat Riset dan Pengabdian Masyarakat dengan LLDIKTI Wilayah VI nomor : 166/SP2H/LT/DRPM/2021 tanggal 18 Maret 2021 tentang Kontrak Penelitian Tahun Jamak Penelitian Dasar dan Pembinaan/Kapasitas Tahun Anggaran 2021.
3. Kontrak Penelitian Tahun Jamak Penelitian Dasar dan Pembinaan/Kapasitas Antara Direktorat Sumber Daya Direktorat Jenderal Pendidikan Tinggi dengan LLDIKTI Wilayah VI nomor : 166/E4.1/AK.04.PT/2021 tanggal 12 Juli 2021

Pasal 2

1. Kontrak Penelitian ini dilaksanakan dalam periode tahun 2021
2. Berkaitan dengan penerbitan revisi kontrak oleh LLDIKTI, dikarenakan adanya pergantian kontrak dari RISTEK DIKTI menjadi Kemendikbud Ristek (sesuai dalam pasal 1), maka peneliti di perbolehkan untuk melaporkan nota-nota kegiatan dimulai pada tanggal 18 Maret 2021

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Pasal 3

1. **PIHAK PERTAMA** mempunyai kewajiban:
   a. Membuat surat penugasan penelitian
   b. Memberikan pendanaan penelitian kepada **PIHAK KEDUA** sebesar Rp.113.340.000,- (Seratus tiga belas juta tiga ratus empat puluh ribu rupiah), dalam satu tahap yakni 100% setelah ada pencairan dana dari LLDIKTI VI
   c. Melakukan pemantauan dan evaluasi secara online dan offline.
2. **PIHAK KEDUA** mempunyai kewajiban :
   a. Melaksanakan isi kontrak penelitian dengan penuh tanggungjawab, dan menyelesaikan seluruh pekerjaan serta menghasilkan luaran yang dijanjikan baik luaran wajib maupun luaran tambahan.
   b. Mengunggah ke laman simlitabmas :
      - Revisi proposal penelitian
      - Surat pernyataan kesanggupan penyusunan laporan penelitian
      - Laporan Akhir
      - Luaran penelitian
      - Catatan harian 100%
      - SPTB 100%

      Paling lambat Selasa 9 November 2021 serta semua file tersebut dikirim ke email lppm@unika.ac.id dengan nama file : NAMA KETUA_SKIM_LAPORAN AKHIR 2021
   c. Menyerahkan/mengirim ke sekretariat LPPM :
      - fotocopy **Laporan Keuangan 100%** beserta nota-notanya dalam bentuk fisik dengan warna cover kuning sebanyak 1 exp **paling lambat 16 November 2021**
      - peneliti wajib membayar pajak PPN dan PPh 22 ke Yayasan Sandjojo dengan menghubungi bapak Joko Sutrisno nomor kontak HP 0815 7778 455
      - fotocopy bukti bayar PPN sebesar 10% dan PPh 22 sebesar 1,5% serta pajak-pajak lain sesuai ketentuan yang berlaku dijadikan satu dalam Laporan Keuangan
      - laporan keuangan penelitian ditulis dalam format font Times New Romans ukuran 12, spasi 1,5 ; kertas A4 pada sampul cover di tulis :

Dibiayai oleh :
Direktorat Sumber Daya Direktorat Jenderal Pendidikan Tinggi
Nomor : 166/E4.1/AK.04.PT/2021

- **Untuk nomor Surat keputusan yang diisikan ke SPTB web simlitabmas** yaitu 166/SP2H/LT/DRPM/2021
- **Untuk nomor Surat Kontrak yang diisikan ke SPTB web simlitabmas** yaitu 166/E4.1/AK.04.PT/2021 dan 64/LL6/PG/SP2H/JG/2021 dan 00869/H.2/LPPMVII/2021

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Pasal 4

1. Setiap Publikasi, makalah dan/atau ekspos dalam bentuk apapun yang berkaitan dengan hasil penelitian ini **WAJIB** mencantumkan pemberi dana penelitian yaitu : **Direktorat Riset dan Pengabdian Masyarakat Deputi Bidang Pengutan Riset dan Pengembangan Kementrian Riset dan Teknologi/Badan Riset dan Inovasi Nasional** sebagai pemberi dana.
2. Hasil Penelitian berupa peralatan dan/atau peralatan yang dibeli dari kegiatan ini adalah milik negara, dan dapat dihibahkan kepada institusi/lembaga melalui **Berita Acara Serah Terima (BAST).**
3. Pengajuan Hak Kekayaan Intelektual (Hak Cipta maupun Paten) hasil dari riset hibah ini memakai pemegang hak cipta lembaga, dalam hal ini adalah **Lembaga Penelitian dan Pengabdian kepada Masyarakat Unika Soegijapranata.**

Pasal 5

1. Bila sampai batas waktu yang telah ditetapkan untuk melaksanakan penugasan penelitian telah berakhir, **PIHAK KEDUA** tidak melaksanakan kewajiban sebagaimana yang sudah diatur dalam Kontrak ini, maka **PIHAK KEDUA** dikenai sanksi administratif sesuai dengan ketentuan pihak pemberi dana:
2. Sanksi administratif sebagaimana dimaksud pada ayat 1 dapat berupa penghentian pembayaran, dan tidak dapat mengajukan proposal penelitian dalam kurun waktu dua tahun berturut-turut.
3. **PIHAK KEDUA** wajib menggunakan keseluruhan dana sesuai pagu dana (**tidak boleh bersisa**)

Pasal 6

Hal-hal yang belum diatur dalam Kontrak Penelitian ini akan diatur kemudian oleh kedua belah pihak

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Pasal 7

Kontrak Penelitian ini dibuat rangkap 2(dua), bermeterai cukup sesuai dengan ketentuan yang berlaku, dan biaya meterai dibebankan kepada **PIHAK PERTAMA**

PIHAK PERTAMA
Kepala LPPM

Dr. Berta Bekti Retnawati, MSi
NIDN. 0606097302

PIHAK KEDUA
Ketua Peneliti

Dr. Ir. Soedarini, MP
NIDN. 0604026802

LAPORAN AKHIR PENELITIAN MULTI TAHUN

ID Proposal: 28d0b523-6f40-466b-96b3-a9532f38c0a1
Laporan Akhir Penelitian: tahun ke-1 dari 2 tahun

1. IDENTITAS PENELITIAN

A. JUDUL PENELITIAN

Minimalisasi Risiko Kontaminasi SARS-CoV-2 pada Pangan Siap Santap yang Diperdagangkan Secara Daring berbasis Pengetahuan, Sikap dan Perilaku Para Aktor

B. BIDANG, TEMA, TOPIK, DAN RUMPUN BIDANG ILMU

Bidang Fokus RIRN / Bidang Unggulan Perguruan Tinggi	Tema	Topik (jika ada)	Rumpun Bidang Ilmu
Peningkatan Ketahanan Pangan dan Kesehatan	-	Teknologi Pascapanen dan Pengolahan Pangan	Ilmu Pangan

C. KATEGORI, SKEMA, SBK, TARGET TKT DAN LAMA PENELITIAN

Kategori (Kompetitif Nasional/ Desentralisasi/ Penugasan)	Skema Penelitian	Strata (Dasar/ Terapan/ Pengembangan)	SBK (Dasar, Terapan, Pengembangan)	Target Akhir TKT	Lama Penelitian (Tahun)
Penelitian Desentralisasi	Penelitian Dasar Unggulan Perguruan Tinggi	SBK Riset Dasar	SBK Riset Dasar	2	2

2. IDENTITAS PENGUSUL

Nama, Peran	Perguruan Tinggi/ Institusi	Program Studi/ Bagian	Bidang Tugas	ID Sinta	H-Index
SOEDARINI Ketua Pengusul	Universitas Katolik Soegijapranata	Teknologi Pangan		6004369	2
Dr. Ir BUDI WIDIANARKO M.Sc. Anggota Pengusul 1	Universitas Katolik Soegijapranata	Lingkungan Dan Perkotaan	Kajian keamanan pangan dan komunikasi kebijakan publik	5977207	12
INNEKE HANTORO Anggota Pengusul 2	Universitas Katolik Soegijapranata	Teknologi Pangan	Kajian penggunaan jenis-jenis kemasan plastik dan karakteristik serta resikonya	6021226	2

3. MITRA KERJASAMA PENELITIAN (JIKA ADA)

Pelaksanaan penelitian dapat melibatkan mitra kerjasama, yaitu mitra kerjasama dalam melaksanakan penelitian, mitra sebagai calon pengguna hasil penelitian, atau mitra investor

Mitra	Nama Mitra

4. LUARAN DAN TARGET CAPAIAN

Luaran Wajib

Tahun Luaran	Jenis Luaran	Status target capaian (*accepted, published, terdaftar atau granted, atau status lainnya*)	Keterangan (*url dan nama jurnal, penerbit, url paten, keterangan sejenis lainnya*)
1	Artikel di Jurnal Internasional Terindeks di Pengindeks Bereputasi	Accepted	Italian Journal of Food Safety

Luaran Tambahan

Tahun Luaran	Jenis Luaran	Status target capaian (*accepted, published, terdaftar atau granted, atau status lainnya*)	Keterangan (*url dan nama jurnal, penerbit, url paten, keterangan sejenis lainnya*)

5. ANGGARAN

Rencana anggaran biaya penelitian mengacu pada PMK yang berlaku dengan besaran minimum dan maksimum sebagaimana diatur pada buku Panduan Penelitian dan Pengabdian kepada Masyarakat Edisi 12.

Total RAB 2 Tahun Rp. 271,645,000

Tahun 1 Total Rp. 120,845,000

Jenis Pembelanjaan	Komponen	Item	Satuan	Vol.	Biaya Satuan	Total
Bahan	ATK	ATK, materai, dll	paket	1	750,000	750,000
Bahan	Barang Persediaan	Webcam	unit	4	650,000	2,600,000
Bahan	Barang Persediaan	Microphone headset	unit	4	300,000	1,200,000
Pengumpulan Data	FGD persiapan penelitian	FGD-1 dengan produsen	paket	1	500,000	500,000
Pengumpulan Data	FGD persiapan penelitian	FGD-2 dengan pengantar makanan	paket	1	500,000	500,000
Pengumpulan Data	FGD persiapan penelitian	FGD-3 dengan konsumen	paket	1	500,000	500,000
Pengumpulan Data	HR Pembantu Peneliti	Membantu pelaksanaan penelitian selama 24 hari kerja	hari	24	80,000	1,920,000
Pengumpulan Data	HR Sekretariat/Administrasi Peneliti	1 orang, 8 bulan	bulan	8	300,000	2,400,000
Pengumpulan Data	Uang harian rapat di dalam kantor	Rapat persiapan FGD	kegiatan	6	1,050,000	6,300,000

Jenis Pembelanjaan	Komponen	Item	Satuan	Vol.	Biaya Satuan	Total
		dan pembahasan hasil FGD, 4 orang (1 orang gol 4 an 3 orang gol 3)				
Pengumpulan Data	Biaya konsumsi	Konsumsi 3 sesi FGD @ 15 orang	orang	45	55,000	2,475,000
Analisis Data	HR Pengolah Data	3 sesi FGD dan 3 sesi Delphi	jenis	6	1,500,000	9,000,000
Analisis Data	Honorarium narasumber	Narasumber 3 sesi FGD @ 8 orang	orang	24	1,000,000	24,000,000
Analisis Data	Honorarium narasumber	Narasumber 3 sesi Delphi @ 7 orang	orang	21	2,000,000	42,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Uang harian rapat di dalam kantor	3 orang gol 3 dan 1 orang gol 4	kali	4	1,050,000	4,200,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Publikasi artikel di Jurnal Internasional	Jurnal internasional open akses	kali	1	15,000,000	15,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Luaran KI (paten, hak cipta dll)	Pembuatan materi video (6) dan pengurusan Hak Cipta (penyiapan dokumen, dll)	paket	1	7,500,000	7,500,000

Tahun 2 Total Rp. 150,800,000

Jenis Pembelanjaan	Komponen	Item	Satuan	Vol.	Biaya Satuan	Total
Bahan	ATK	ATK, materai, external HD 1 Tb	paket	1	1,500,000	1,500,000
Pengumpulan Data	FGD persiapan penelitian	2 sesi @ 4 orang	orang	8	1,000,000	8,000,000
Pengumpulan Data	HR Pembantu Peneliti	1 orang, 8 bulan	bulan	8	500,000	4,000,000
Pengumpulan Data	HR Sekretariat/Administrasi Peneliti	1 orang, 8 bulan	bulan	8	300,000	2,400,000
Pengumpulan Data	Uang harian rapat di dalam kantor	3 orang gol 3, 1 orang gol 4	kali	8	1,050,000	8,400,000
Analisis Data	HR Pengolah Data	Pengolahan data delphi dan	jenis	4	1,500,000	6,000,000

Jenis Pembelanjaan	Komponen	Item	Satuan	Vol.	Biaya Satuan	Total
		FGD				
Analisis Data	Honorarium narasumber	Narasumber Delphi - 2 sesi (Taiwan dan Vietnam) @ 8 orang	orang	16	2,000,000	32,000,000
Analisis Data	Honorarium narasumber	Narasumber 2 sesi FGD @ 4 orang	orang	8	1,000,000	8,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Uang harian rapat di dalam kantor	Penyusunan laporan dan publikasi, 3 orang gol 3 dan 1 orang gol 4	kali	10	1,050,000	10,500,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Biaya seminar internasional	ICSAF Thailand (registrasi, inap dan tiket)	orang	4	12,500,000	50,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Publikasi artikel di Jurnal Internasional	Jurnal internasional (open source)	kali	1	15,000,000	15,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Luaran KI (paten, hak cipta dll)	Pembuatan materi, penyusunan dokumen hak cipta dan pendaftaran	paket	1	5,000,000	5,000,000

6. HASIL PENELITIAN

A. RINGKASAN: Tuliskan secara ringkas latar belakang penelitian, tujuan dan tahapan metode penelitian, luaran yang ditargetkan, serta uraian TKT penelitian.

Tren pesan antar makanan siap santap secara daring (Online Food Delivery, OFD) selama pandemi Covid 19 meningkat 42%. Keamanan pangan khususnya kontaminasi virus SARS-CoV-2 pada pangan siap santap OFD merupakan hal yang perlu diperhatikan. Fokus penelitian skema PDUPT ini adalah mengkaji keselarasan pengetahuan, persepsi dan tindakan para pihak yang terlibat dalam bisnis OFD.

Pelaksanaan penelitian terbagi dalam empat tahap yaitu: TAHAP 1 - Swa-identifikasi tentang pengetahuan, sikap dan tindakan tentang risiko keamanan pangan terkait dengan SARS CoV-2. Focus Group Discussion (FGD) digunakan dalam swa-identifikasi untuk tiga kelompok aktor (produsen, pengantar dan konsumen OFD) masing-masing melibatkan 8 orang responden. TAHAP 2 - Konfirmasi hasil FGD para aktor oleh 7 ahli yang bidang keahliannya relevan dengan penularan Covid-19 dilakukan melalui proses Delphi. TAHAP 3 - Analisis data kualitatif tentang keterkaitan pengetahuan, sikap dan tindakan para aktor tentang risiko keamanan pangan; TAHAP 4 - Analisis data kualitatif untuk memformulasikan elemen utama intervensi untuk mereduksi risiko keamanan pangan terkait SARS CoV-2.

Pada bulan November tahun pertama penelitian (2021), telah diperoleh data kualitatif tentang tingkat pengetahuan, persepsi dan tindakan tiga aktor (produsen, pengantar dan

konsumen) terkait risiko kontaminasi SARS-CoV-2 pada pangan siap santap OFD. Telah diperoleh pula data kualitatif yang menunjukkan tingkat keselarasan antara pengetahuan, persepsi dan tindakan terkait risiko Covid-19. Perumusan elemen utama intervensi untuk mereduksi risiko Covid-19 terkait pangan siap santap OFD masih dalam pengkajian.

Luaran yang sudah dihasilkan sejauh ini adalah tiga video sinematografi terkait bisnis OFD untuk pembelajaran matakuliah Keamanan Pangan. Ke tiga video tersebut telah diunggah di media sosial YouTube dan masing-masing berjudul (1) How does your Online Delivery Food was prepared, (2) How does your Online Delivery Food was delivered, dan (3) How to handle your Online Food Deliveries. Luaran utama penelitian yang ditargetkan berupa artikel penelitian di jurnal ilmiah internasional terindex Scopus Q3 peer reviewed pada saat ini masih dalam proses penulisan. Manuskrip untuk publikasi di jurnal ilmiah Food Quality and Safety (terindex Scopus Q1) berjudul “Covid-19 Risk Prevention among Drivers Online Food Delivery in Semarang, Indonesia” masih tersedia sebagai draft.

B. KATA KUNCI: Tuliskan maksimal 5 kata kunci.

Pangan_siap_santap; Online_Food_Delivery; Covid-19; SARS Cov-2; Keamanan_Pangan.

Pengisian poin C sampai dengan poin H mengikuti template berikut dan tidak dibatasi jumlah kata atau halaman namun disarankan seringkas mungkin. Dilarang menghapus/memodifikasi template ataupun menghapus penjelasan di setiap poin.

C. HASIL PELAKSANAAN PENELITIAN: Tuliskan secara ringkas hasil pelaksanaan penelitian yang telah dicapai sesuai tahun pelaksanaan penelitian. Penyajian dapat berupa data, hasil analisis, dan capaian luaran (wajib dan atau tambahan). Seluruh hasil atau capaian yang dilaporkan harus berkaitan dengan tahapan pelaksanaan penelitian sebagaimana direncanakan pada proposal. Penyajian data dapat berupa gambar, tabel, grafik, dan sejenisnya, serta analisis didukung dengan sumber pustaka primer yang relevan dan terkini.

Pengisian poin C sampai dengan poin H mengikuti template berikut dan tidak dibatasi jumlah kata atau halaman namun disarankan seringkas mungkin. Dilarang menghapus/memodifikasi template ataupun menghapus penjelasan di setiap poin.

C. **HASIL PELAKSANAAN PENELITIAN:** Tuliskan secara ringkas hasil pelaksanaan penelitian yang telah dicapai sesuai tahun pelaksanaan penelitian. Penyajian meliputi data, hasil analisis, dan capaian luaran (wajib dan atau tambahan). Seluruh hasil atau capaian yang dilaporkan harus berkaitan dengan tahapan pelaksanaan penelitian sebagaimana direncanakan pada proposal. Penyajian data dapat berupa gambar, tabel, grafik, dan sejenisnya, serta analisis didukung dengan sumber pustaka primer yang relevan dan terkini.

Hasil pelaksanaan penelitian yang telah dipeoleh pada tahun pertama (2021) adalah sebagai berikut:

1) Data kualitatif tentang tingkat pengetahuan, persepsi dan tindakan dari 3 kelompok pelaku bisnis OFD (produsen, pengantar dan konsumen) tentang risiko kontaminasi SARS-CoV-2 pada pangan siap santap;

2) Data kualitatif keselarasan antara pengetahuan, persepsi dan tindakan terkait risiko Covid-19 di kalangan produsen, pengantar dan konsumen OFD;

3) Rumusan elemen utama intervensi untuk reduksi risiko Covid-19 berdasarkan hasil analisis pengetahuan, persepsi, dan tindakan di kalangan produsen, konsumen, dan pengantar.

Kelompok pengantar (driver OFD) - Tingkat pengetahuan, persepsi dan tindakan terkait resiko kontaminasi SARS-CoV-2 pada pangan siap santap OFD

Perekrutan delapan responden pengantar jasa pesan antar makanan siap santap (driver OFD) menggunakan metode *purposive sampling*, yaitu metode pengambilan sampel dengan kriteria-kriteria tertentu. Semua responden driver OFD berusia di atas 18 tahun dan penidikan minimal SMA. Data kualitatif yang menunjukkan tingkat pengetahuan, persepsi dan tindakan pengantar makanan online siap saji terkait risiko keamanan dengan SARS CoV-2. dikumpulkan melalui tahap Swa-Identifikasi (self identification) atau Focus Group Discussion (FGD) didasarkan pada delapan pertanyaan kunci yaitu: (i) COVID-19 dan transmisinya, (ii) Penggunaan masker, (iii) Pengecekan suhu tubuh, (iv) Penggunaan desinfektan, (v) Metode pembersihan tangan, (vi) Himbauan dari produsen, (vii) Himbauan di konsumen dan (viii) Penggunaan sarung tangan.

Driver OFD baik yang berafiliasi dengan GoFood maupun GrabFood secara umum memiliki tingkat pengetahuan serta persepsi tentang keamanan pangan dan resiko kontaminasi SARS Cov-2 pada makanan siap santap pada tingkat sedang. Meskipun demikian, driver OFD menunjukkan tindakan yang baik dan benar untuk mencegah risiko-risko kontaminasi pangan oleh SARS Cov-2 maupun cemaran atau kontaminan penyebab penyakit secara umum lainnya. Contoh tindakan tersebut antara lain: (a) mematuhi protokol kesehatan yang ditetapkan perusahaan jasa pengantaran, (b) memastikan makanan yang diantar terjaga utuh dan bersih, baik melalui pembersihan kendaraannya, menggunakan tas plastik yang diikat atau tas khusus yang rutin dibersihkan.

Beberapa faktor yang mendukung driver OFD melakukan tindakan pencegahan risiko kontaminasi pangan dari cemaran maupun SARS CoV-2 adalah (a) aturan yang ditetapkan dari perusahaan jasa pengantaran, (b) aturan dari pemangku kepentingan atau pemerintah daerah terkait protokol kesehatan.

Kelompok produsen (penjual OFD) - Tingkat pengetahuan, persepsi dan tindakan terkait resiko kontaminasi SARS-CoV-2 pada pangan siap santap OFD

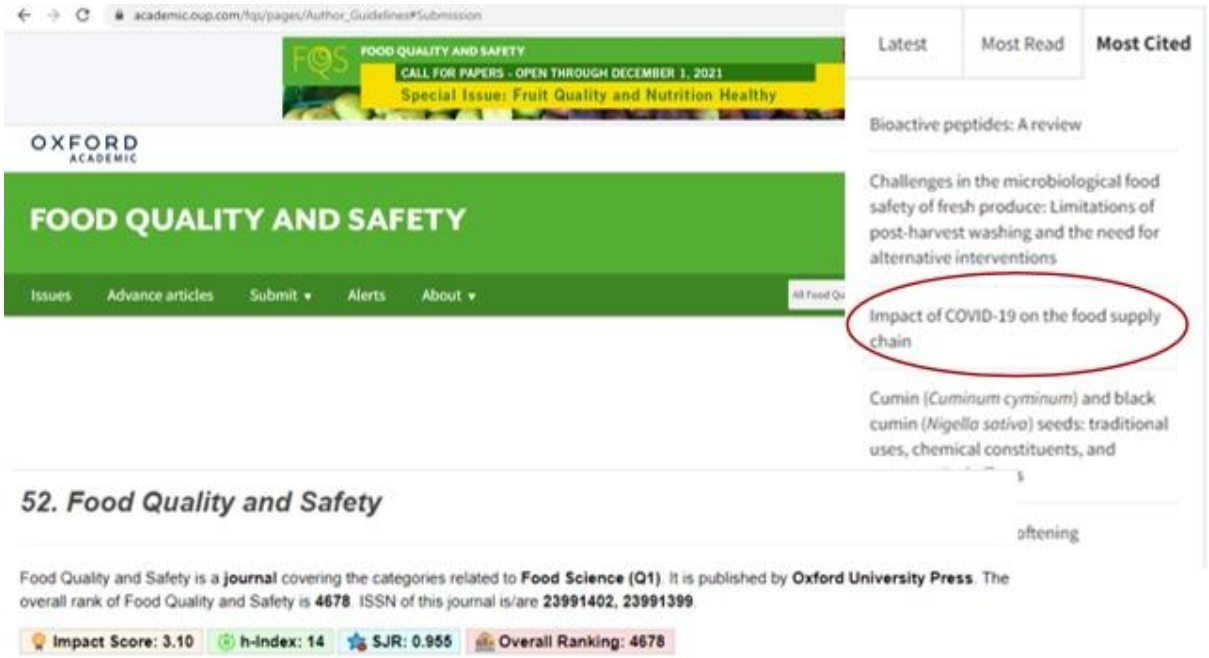
Delapan responden produsen makanan siap santap atau penjual yang berafiliasi dengan OFD (GoFood maupun GrabFood) direkrut menggunakan *purposive sampling*, Semua responden tersebut memiliki dapur pribadi untuk penyiapan makanan atau minuman siap santap, baik yang bersifat panas ataupun dingin. Responden memliki pengetahuan dan persepsi yang sudah sudah benar tentang keamanan pangan dan tindakan minimalisasi risiko penyebaran SARS-CoV-2 melalui pangan saiap santap. Beberapa produsen menyatakan bahwa pengelolaan tempat area produksi telah sesuai dengan standar untuk produksi pangan yang baik dan benar. Selama masa pandemi Covid-19, produsen telah menerapkan berbagai tindakan/ perilaku sesuai dengan protokol kesehatan pencegahan Covid-19, diantaranya penggunaan masker, pencucian tangan secara reguler.

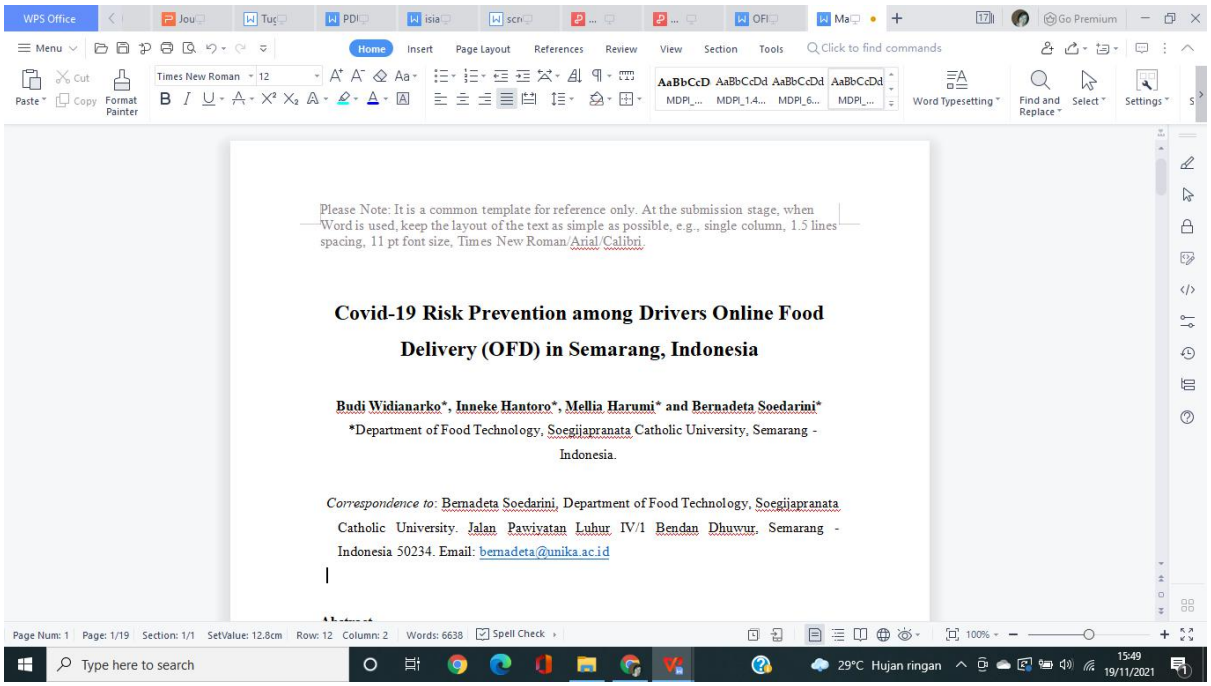
Kelompok konsumen (pembeli OFD) - Tingkat pengetahuan, persepsi dan tindakan terkait resiko kontaminasi SARS-CoV-2 pada pangan siap santap OFD

Delapan responden konsumen OFD direkrut dengan metode *purposive sampling*. Semua responden merupakan konsumen yang sering menggunakan jasa laynanan pesan antar makanan dan telah menggunakan jasa layanan tersebut selmaa lebih dari satu tahun. Semua responden memiliki status pendidikan minimal SMA. Responden menyatakan bahwa pemilihan makanan melalui aplikasi layanan pesan antar didasarkan pada perspektif review dari pelanggan lain terhadap kualitas makanan dan restoran. Ketika menerima makanan dalam keadaan tidak baik, beberapa responden menyatakan rela untuk tidak mengonsumsi produk tersebut. Sebagian responden mengaku babhwa makanan yang diterima dalam keadaan yang sudah dingin akan dilakukan proses pemanasan ulang sedangkan beberapa menyatakan bahwa langsung mengonsumsi makanan tersebut. Tingkat literasi dan internalisasi pada konsumen terkait minimalisasi resiko kontaminasi Sars Cov-2 pada semua responden menunjukkan tingkat yang tinggi. Informasi yang cukup gencar baik di media massa maupun media lain merupakan sumber informasi yang efektif untuk minimalisasi resiko penyebaran Sars Cov-2 secara umum.

D. **STATUS LUARAN**: Tuliskan jenis, identitas dan status ketercapaian setiap luaran wajib dan luaran tambahan (jika ada) yang dijanjikan. Jenis luaran dapat berupa publikasi, perolehan kekayaan intelektual, hasil pengujian atau luaran lainnya yang telah dijanjikan pada proposal. Uraian status luaran harus didukung dengan bukti kemajuan ketercapaian luaran sesuai dengan luaran yang dijanjikan. Lengkapi isian jenis luaran yang dijanjikan serta mengunggah bukti dokumen ketercapaian luaran wajib dan luaran tambahan melalui Simlitabmas.

Luaran wajib penelitian skim PDUPT ini adalah artikel yang dipublikasikan di journal internasional terindeks Q2. Namun demikian, pada November 2021 ini target tersebut baru dapat dipenuhi sebagian. Kendala utama yang dihadapi peneliti adalah durasi yang sangat pendek antara pencairan dana penelitian dan pelaporan penelitian. Terlampir adalah informasi seputar jurnal Food Quality and Safety serta manuskrip yang akan dikirimkan.





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Covid-19 Risk Prevention among Drivers Online Food Delivery (OFD) in Semarang, Indonesia

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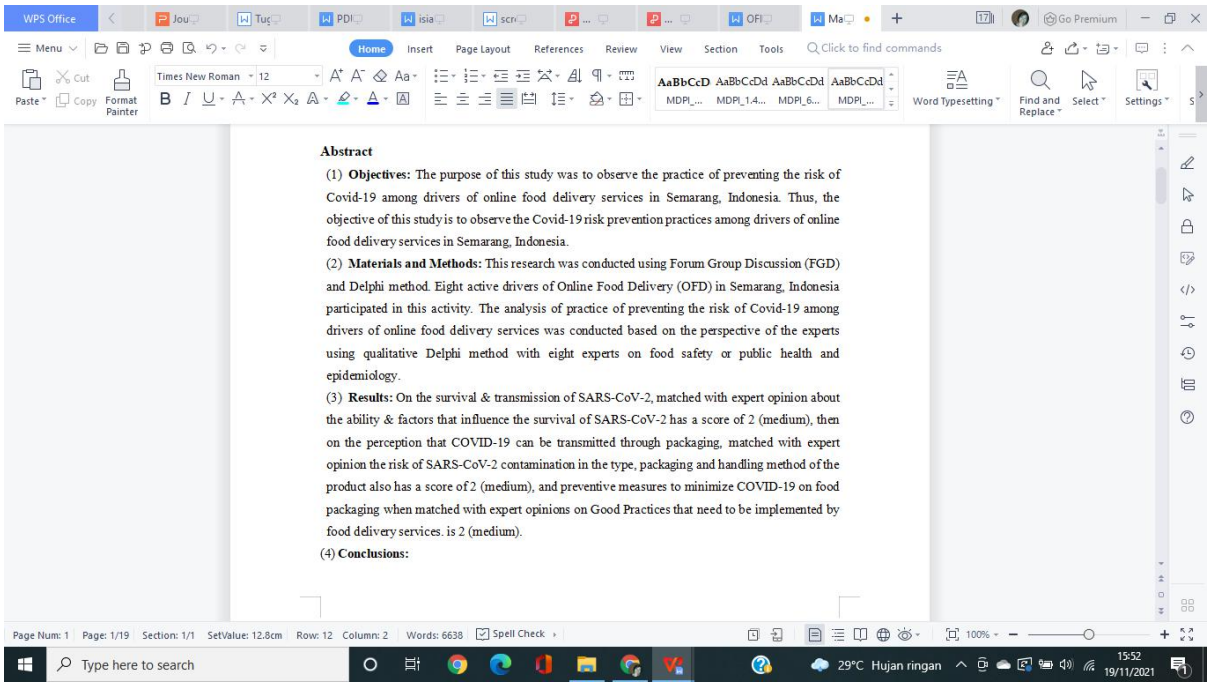


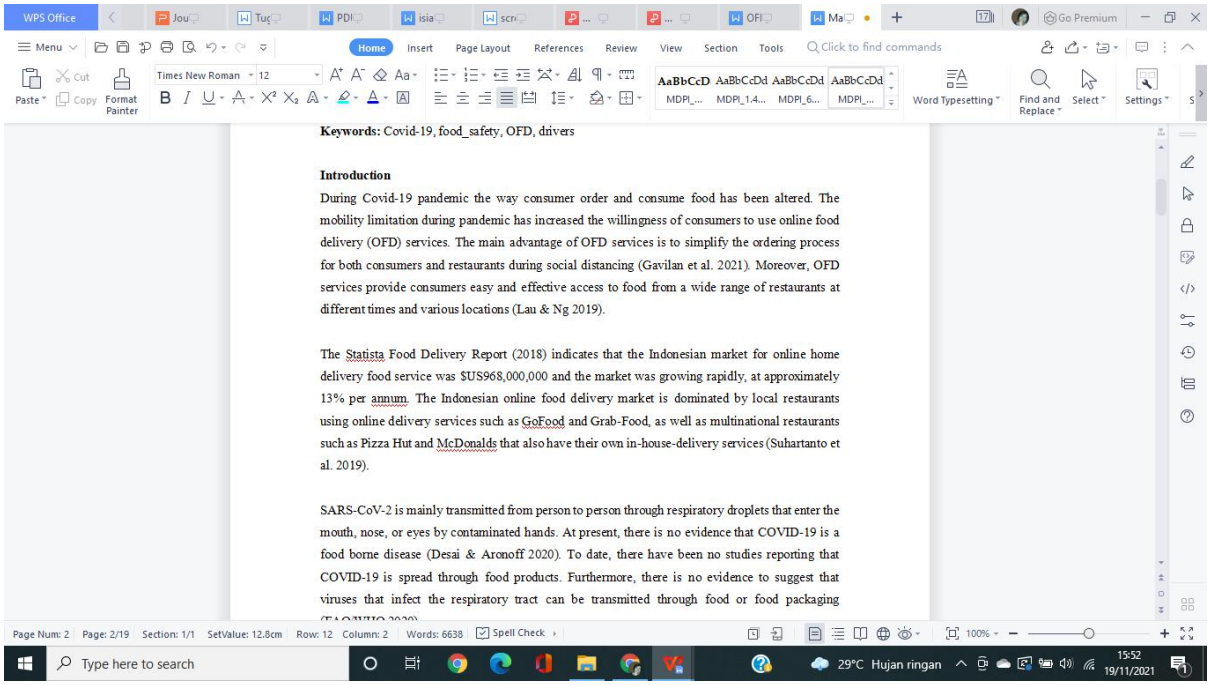
Abstract

(1) **Objectives:** The purpose of this study was to observe the practice of preventing the risk of Covid-19 among drivers of online food delivery services in Semarang, Indonesia. Thus, the objective of this study is to observe the Covid-19 risk prevention practices among drivers of online food delivery services in Semarang, Indonesia.

(2) **Materials and Methods:** This research was conducted using Forum Group Discussion (FGD) and Delphi method. Eight active drivers of Online Food Delivery (OFD) in Semarang, Indonesia participated in this activity. The analysis of practice of preventing the risk of Covid-19 among drivers of online food delivery services was conducted based on the perspective of the experts using qualitative Delphi method with eight experts on food safety or public health and epidemiology.

(3) **Results:** On the survival & transmission of SARS-CoV-2, matched with expert opinion about the ability & factors that influence the survival of SARS-CoV-2 has a score of 2 (medium), then on the perception that COVID-19 can be transmitted through packaging, matched with expert opinion the risk of SARS-CoV-2 contamination in the type, packaging and handling method of the product also has a score of 2 (medium), and preventive measures to minimize COVID-19 on food packaging when matched with expert opinions on Good Practices that need to be implemented by food delivery services. is 2 (medium).

(4) **Conclusions:**



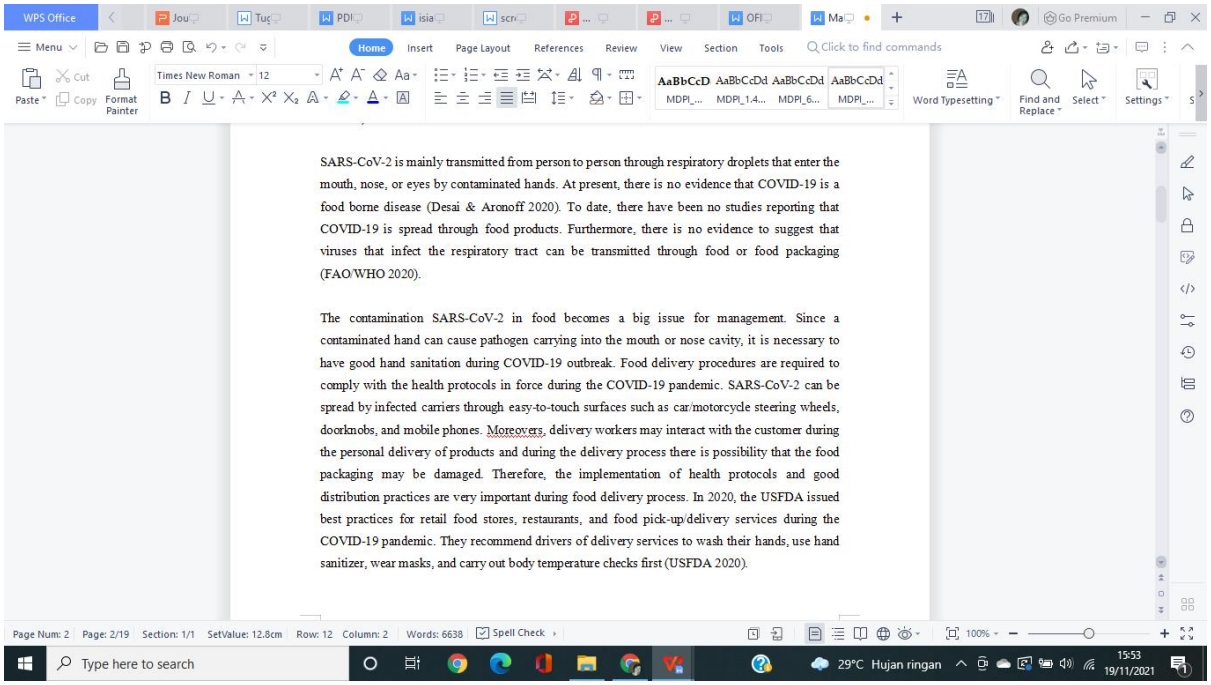
Keywords: Covid-19, food_safety, OFD, drivers

Introduction

During Covid-19 pandemic the way consumer order and consume food has been altered. The mobility limitation during pandemic has increased the willingness of consumers to use online food delivery (OFD) services. The main advantage of OFD services is to simplify the ordering process for both consumers and restaurants during social distancing (Gavilan et al. 2021). Moreover, OFD services provide consumers easy and effective access to food from a wide range of restaurants at different times and various locations (Lau & Ng 2019).

The Statista Food Delivery Report (2018) indicates that the Indonesian market for online home delivery food service was $US968,000,000 and the market was growing rapidly, at approximately 13% per annum. The Indonesian online food delivery market is dominated by local restaurants using online delivery services such as GoFood and Grab-Food, as well as multinational restaurants such as Pizza Hut and McDonalds that also have their own in-house-delivery services (Suhartanto et al. 2019).

SARS-CoV-2 is mainly transmitted from person to person through respiratory droplets that enter the mouth, nose, or eyes by contaminated hands. At present, there is no evidence that COVID-19 is a food borne disease (Desai & Aronoff 2020). To date, there have been no studies reporting that COVID-19 is spread through food products. Furthermore, there is no evidence to suggest that viruses that infect the respiratory tract can be transmitted through food or food packaging



SARS-CoV-2 is mainly transmitted from person to person through respiratory droplets that enter the mouth, nose, or eyes by contaminated hands. At present, there is no evidence that COVID-19 is a food borne disease (Desai & Aronoff 2020). To date, there have been no studies reporting that COVID-19 is spread through food products. Furthermore, there is no evidence to suggest that viruses that infect the respiratory tract can be transmitted through food or food packaging (FAO/WHO 2020).

The contamination SARS-CoV-2 in food becomes a big issue for management. Since a contaminated hand can cause pathogen carrying into the mouth or nose cavity, it is necessary to have good hand sanitation during COVID-19 outbreak. Food delivery procedures are required to comply with the health protocols in force during the COVID-19 pandemic. SARS-CoV-2 can be spread by infected carriers through easy-to-touch surfaces such as car/motorcycle steering wheels, doorknobs, and mobile phones. Moreovers, delivery workers may interact with the customer during the personal delivery of products and during the delivery process there is possibility that the food packaging may be damaged. Therefore, the implementation of health protocols and good distribution practices are very important during food delivery process. In 2020, the USFDA issued best practices for retail food stores, restaurants, and food pick-up/delivery services during the COVID-19 pandemic. They recommend drivers of delivery services to wash their hands, use hand sanitizer, wear masks, and carry out body temperature checks first (USFDA 2020).

Given the increasing importance of the food delivery sector in Indonesia during the pandemic and the potential risks to food safety, particularly those related to the transmission of Covid-19, it is important to evaluate the practices carried out by the real actors of OFD services, namely drivers. Thus, the purpose of this study was to observe the practice of preventing the risk of Covid-19 among drivers of online food delivery services in Semarang, Indonesia. Thus, the objective of this study is to observe the Covid-19 risk prevention practices among drivers of online food delivery services in Semarang, Indonesia.

Materials and Methods

The study was conducted in 2 parts. The first qualitative descriptive study was conducted using Forum Group Discussion (FGD). Snowball sampling technique was used to select the participants from drivers of Online Food Delivery in Semarang, Indonesia. Eight active drivers above 18 years old and have been worked for more than 1 year as driver of online food delivery followed this discussion. The discussion was carried out using video conferencing via google meet. A moderator lead the discussion for about 3 hours. Data was then analysed to identify the relationship between knowledge, attitude, and practice among drivers toward Covid-19 risk prevention. FGD method was continued using qualitative DELPHI method. The Delphi method was conducted to seek the most reliable consencus opinion from the experts on either food safety or public health and epidemiology. With regard to the recruitment process, we decided to invite eight experts with the minimum requirement on academic qualification of Master degree. The eight experts were consist of seven academians from university and one expertise from food industry. Among those seven academicians, six from Soegijapranata Catholic University and the other from

Results

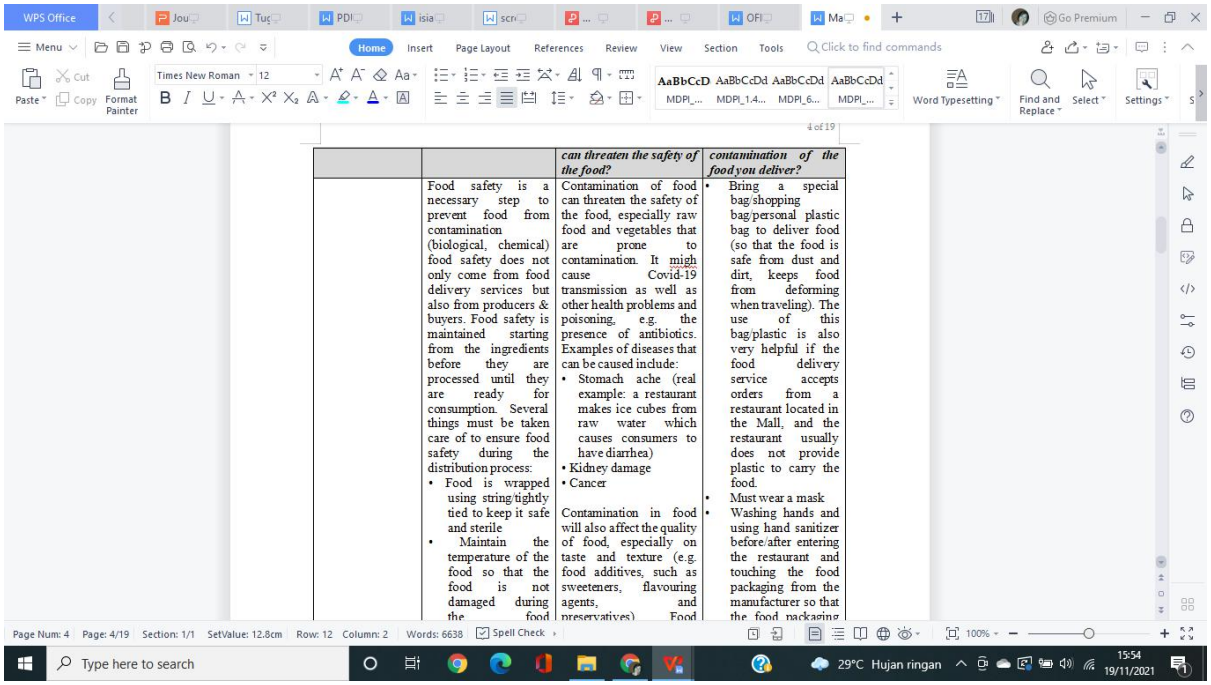
Knowledge, Perception and Practices of the Drivers

Knowledge, perception and practices on Covid-19 risk prevention among the online food delivery drivers explored in Focused Group Discussion (FGD) are grouped according to three levels of inquiry. The first level is on general food safety issue; while second level is on supporting local environment. Ultimately the third level addresses the most important set of knowledge, perception and practices associated with Covid-19 and food safety. Responses of the drivers on general food safety issues are listed in Table 1.

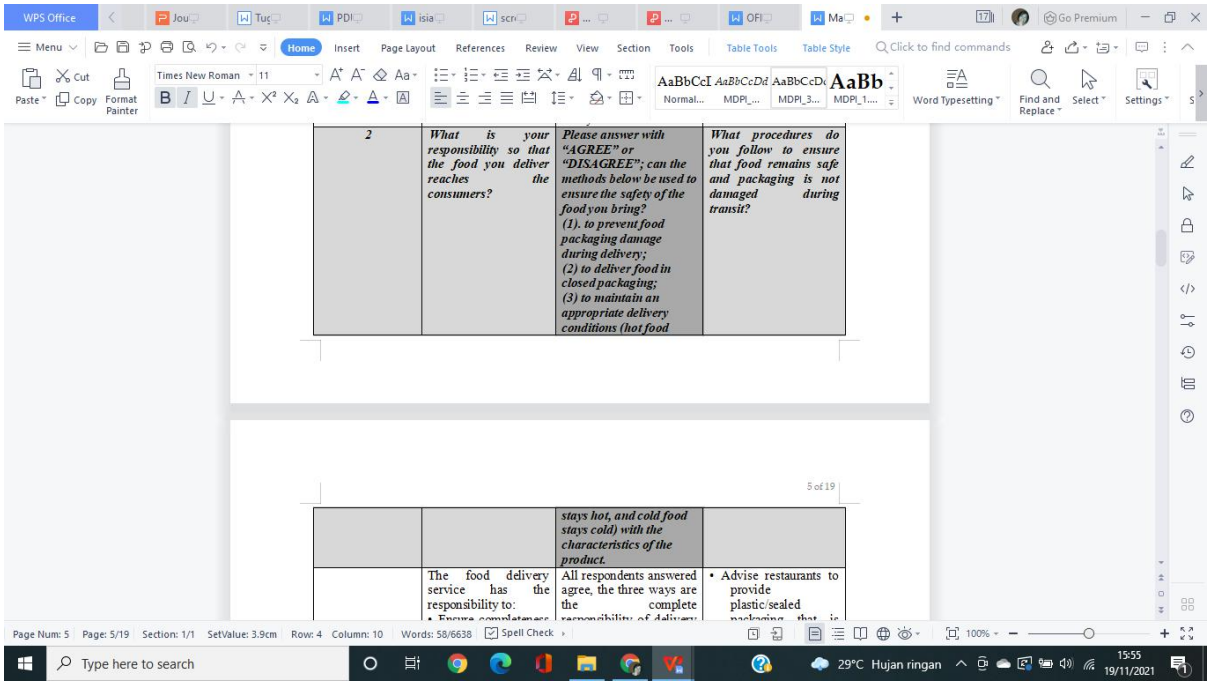
Table 1. Results of FGD on General Food Safety Issues

Question Set	KNOWLEDGE	PERCEPTION	PRACTICES
1	***What do you know about food safety?***	***Do you think that contamination in food***	***What are the actions that can prevent***

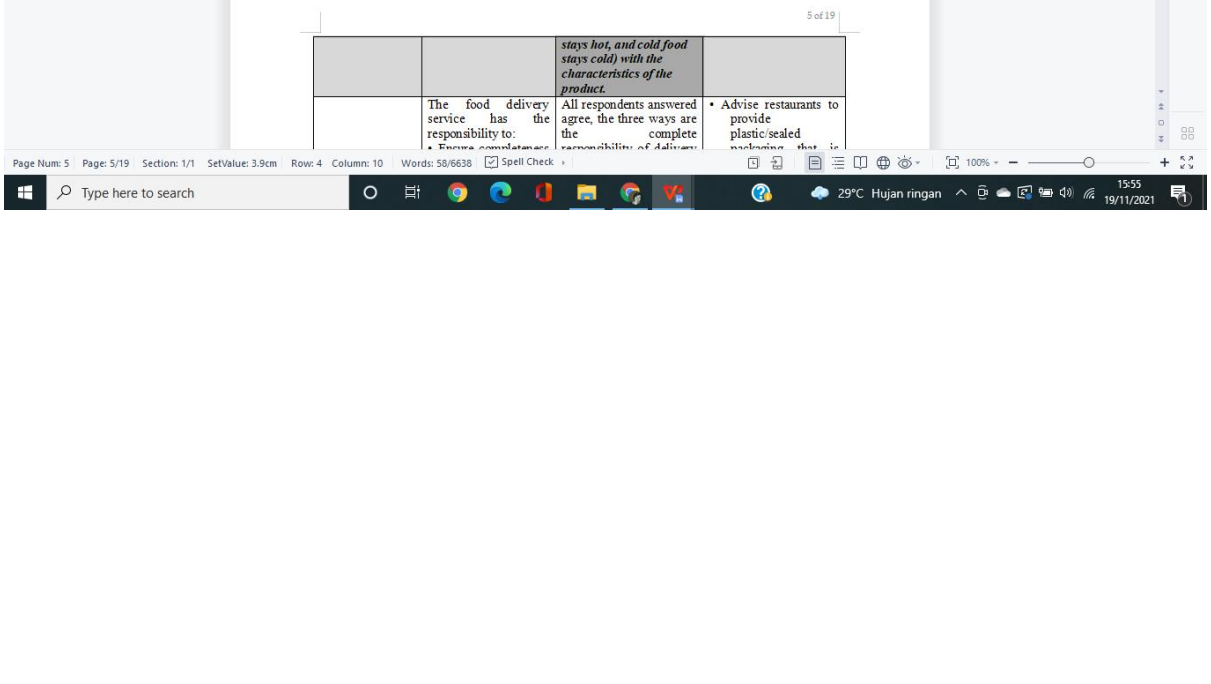
		can threaten the safety of the food?	***contamination of the food you deliver?***



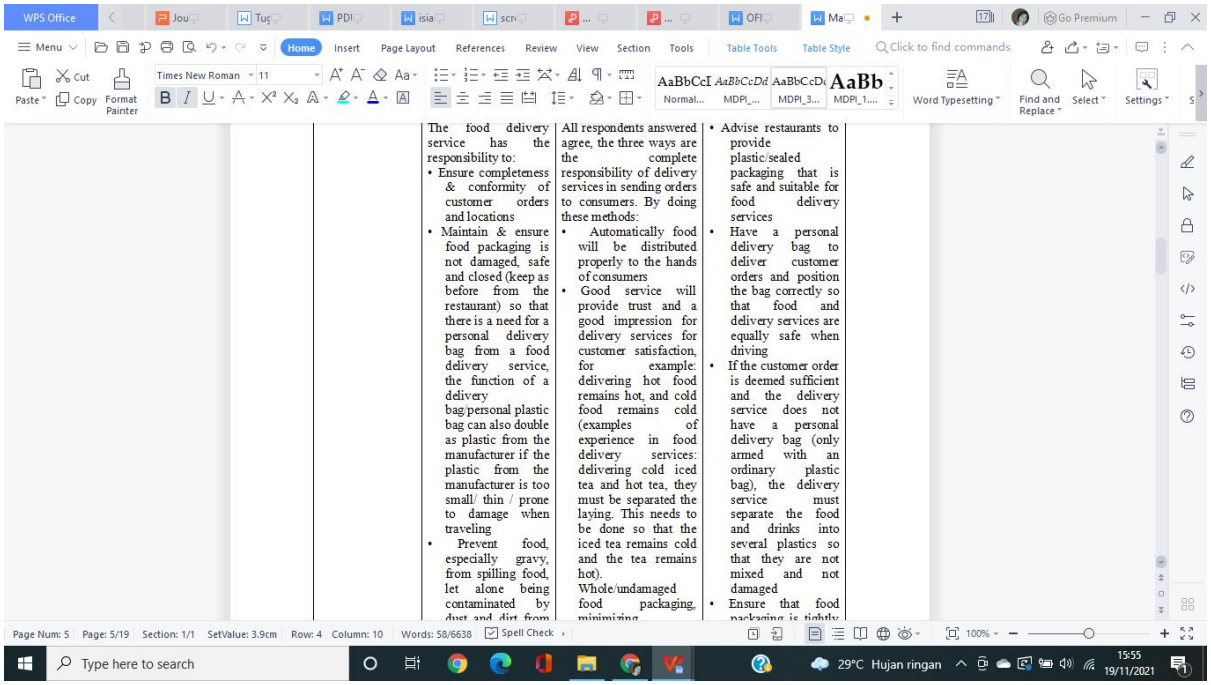
		can threaten the safety of the food?	***contamination of the food you deliver?***
	Food safety is a necessary step to prevent food from contamination (biological, chemical) food safety does not only come from food delivery services but also from producers & buyers. Food safety is maintained starting from the ingredients before they are processed until they are ready for consumption. Several things must be taken care of to ensure food safety during the distribution process: • Food is wrapped using string/tightly tied to keep it safe and sterile • Maintain the temperature of the food so that the food is not damaged during the	Contamination of food can threaten the safety of the food, especially raw food and vegetables that are prone to contamination. It migh cause Covid-19 transmission as well as other health problems and poisoning, e.g. the presence of antibiotics. Examples of diseases that can be caused include: • Stomach ache (real example: a restaurant makes ice cubes from raw water which causes consumers to have diarrhea) • Kidney damage • Cancer Contamination in food will also affect the quality of food, especially on taste and texture (e.g. food additives, such as sweeteners, flavouring agents, and preservatives). Food	• Bring a special bag/shopping bag/personal plastic bag to deliver food (so that the food is safe from dust and dirt, keeps food from deforming when traveling). The use of this bag/plastic is also very helpful if the food delivery service accepts orders from a restaurant located in the Mall, and the restaurant usually does not provide plastic to carry the food. • Must wear a mask • Washing hands and using hand sanitizer before/after entering the restaurant and touching the food packaging from the manufacturer so that the food packaging



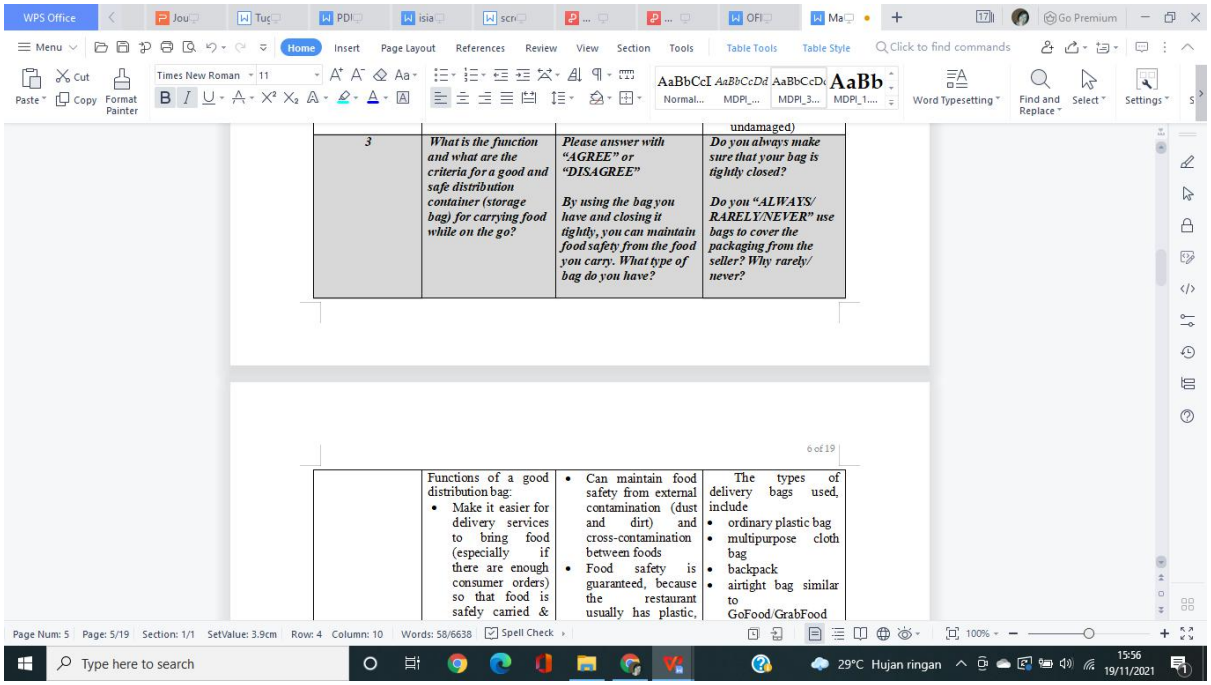
2	***What is your responsibility so that the food you deliver reaches the consumers?***	***Please answer with "AGREE" or "DISAGREE"; can the methods below be used to ensure the safety of the food you bring?*** ***(1). to prevent food packaging damage during delivery;*** ***(2) to deliver food in closed packaging;*** ***(3) to maintain an appropriate delivery conditions (hot food***	***What procedures do you follow to ensure that food remains safe and packaging is not damaged during transit?***



		stays hot, and cold food stays cold) with the characteristics of the product.	
	The food delivery service has the responsibility to:	All respondents answered agree, the three ways are the complete	• Advise restaurants to provide plastic/sealed

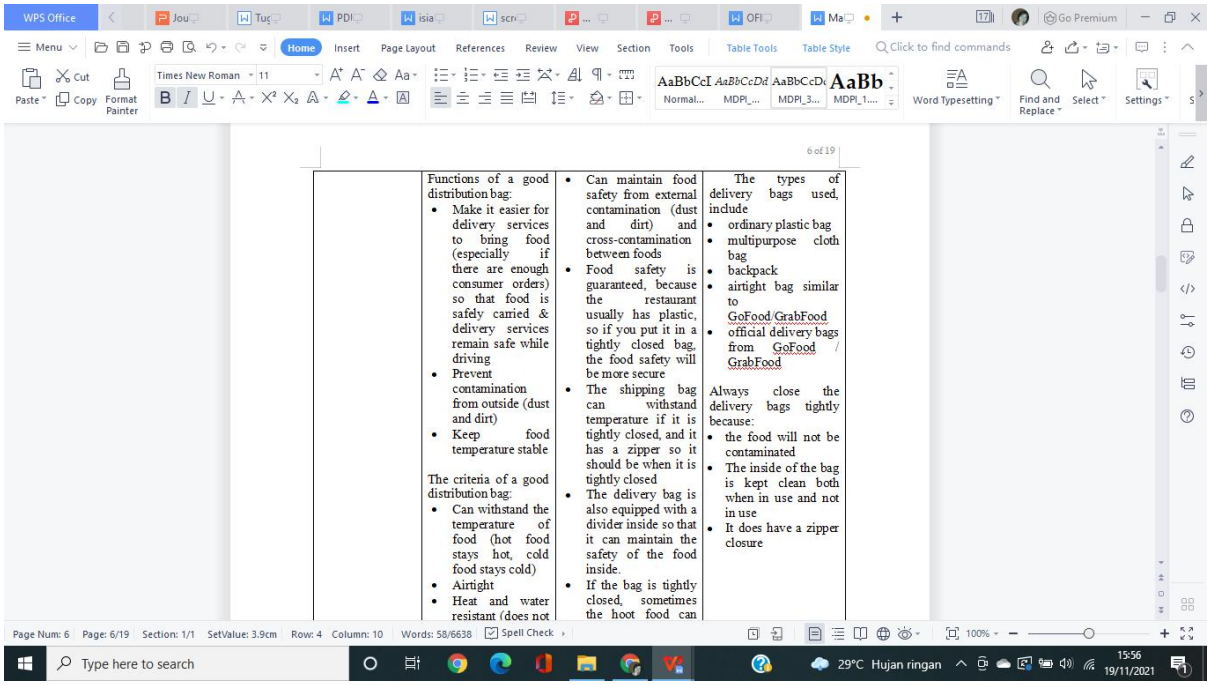


	The food delivery service has the responsibility to: • Ensure completeness & conformity of customer orders and locations • Maintain & ensure food packaging is not damaged, safe and closed (keep as before from the restaurant) so that there is a need for a personal delivery bag from a food delivery service, the function of a delivery bag/personal plastic bag can also double as plastic from the manufacturer if the plastic from the manufacturer is too small/ thin / prone to damage when traveling • Prevent food, especially gravy, from spilling food, let alone being contaminated by dust and dirt from	All respondents answered agree, the three ways are the complete responsibility of delivery services in sending orders to consumers. By doing these methods: • Automatically food will be distributed properly to the hands of consumers • Good service will provide trust and a good impression for delivery services for customer satisfaction, for example: delivering hot food remains hot, and cold food remains cold (examples of experience in food delivery services: delivering cold iced tea and hot tea, they must be separated the laying. This needs to be done so that the iced tea remains cold and the tea remains hot). Whole/undamaged food packaging, minimizing	• Advise restaurants to provide plastic/sealed packaging that is safe and suitable for food delivery services • Have a personal delivery bag to deliver customer orders and position the bag correctly so that food and delivery services are equally safe when driving • If the customer order is deemed sufficient and the delivery service does not have a personal delivery bag (only armed with an ordinary plastic bag), the delivery service must separate the food and drinks into several plastics so that they are not mixed and not damaged • Ensure that food packaging is tightly

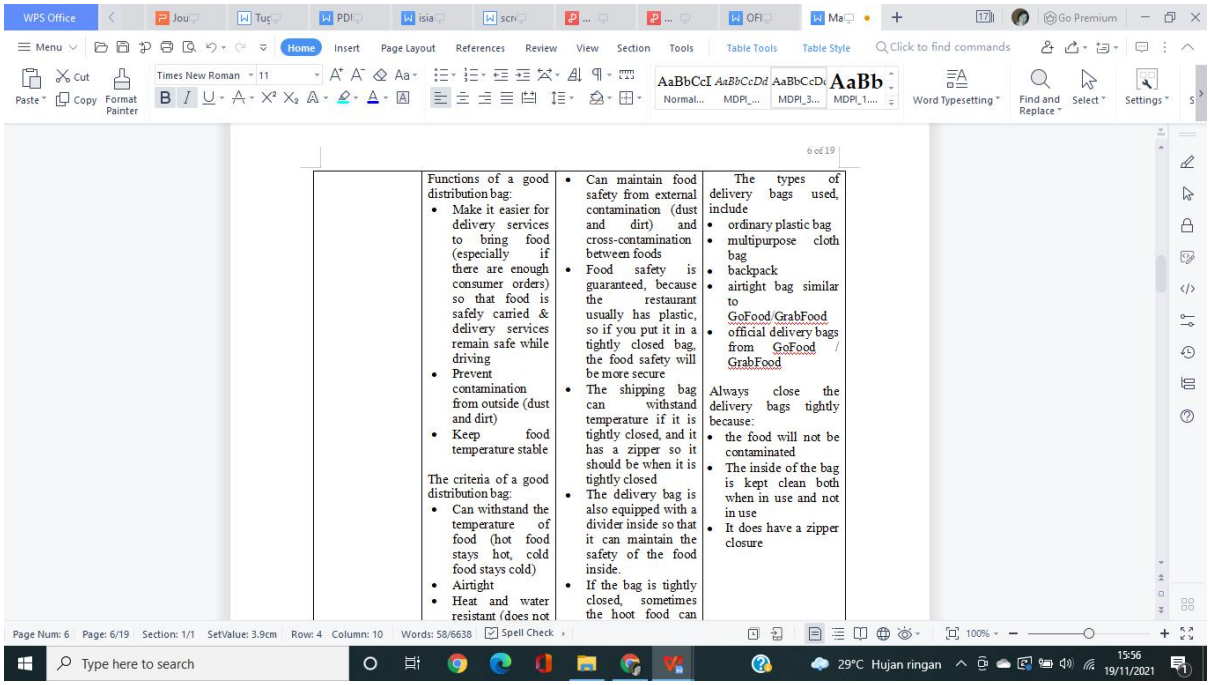


			undamaged)
3	***What is the function and what are the criteria for a good and safe distribution container (storage bag) for carrying food while on the go?***	***Please answer with "AGREE" or "DISAGREE"*** ***By using the bag you have and closing it tightly, you can maintain food safety from the food you carry. What type of bag do you have?***	***Do you always make sure that your bag is tightly closed?*** ***Do you "ALWAYS/ RARELY/NEVER" use bags to cover the packaging from the seller? Why rarely/ never?***

	Functions of a good distribution bag: • Make it easier for delivery services to bring food (especially if there are enough consumer orders) so that food is safely carried &	• Can maintain food safety from external contamination (dust and dirt) and cross-contamination between foods • Food safety is guaranteed, because the restaurant usually has plastic,	The types of delivery bags used, include • ordinary plastic bag • multipurpose cloth bag • backpack • airtight bag similar to GoFood/GrabFood



	Functions of a good distribution bag: • Make it easier for delivery services to bring food (especially if there are enough consumer orders) so that food is safely carried & delivery services remain safe while driving • Prevent contamination from outside (dust and dirt) • Keep food temperature stable The criteria of a good distribution bag: • Can withstand the temperature of food (hot food stays hot, cold food stays cold) • Airtight • Heat and water resistant (does not	• Can maintain food safety from external contamination (dust and dirt) and cross-contamination between foods • Food safety is guaranteed, because the restaurant usually has plastic, so if you put it in a tightly closed bag, the food safety will be more secure • The shipping bag can withstand temperature if it is tightly closed, and it has a zipper so it should be when it is tightly closed • The delivery bag is also equipped with a divider inside so that it can maintain the safety of the food inside. • If the bag is tightly closed, sometimes the hoot food can	The types of delivery bags used, include • ordinary plastic bag • multipurpose cloth bag • backpack • airtight bag similar to GoFood/GrabFood • official delivery bags from GoFood / GrabFood Always close the delivery bags tightly because: • the food will not be contaminated • The inside of the bag is kept clean both when in use and not in use • It does have a zipper closure



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Functions of a good distribution bag:
• Make it easier for delivery services to bring food (especially if there are enough consumer orders) so that food is safely carried & delivery services remain safe while driving
• Prevent contamination from outside (dust and dirt)
• Keep food temperature stable

The criteria of a good distribution bag:
• Can withstand the temperature of food (hot food stays hot, cold food stays cold)
• Airtight
• Heat and water resistant (does not

• Can maintain food safety from external contamination (dust and dirt) and cross-contamination between foods
• Food safety is guaranteed, because the restaurant usually has plastic, so if you put it in a tightly closed bag, the food safety will be more secure
• The shipping bag can withstand temperature if it is tightly closed, and it has a zipper so it should be when it is tightly closed
• The delivery bag is also equipped with a divider inside so that it can maintain the safety of the food inside.
• If the bag is tightly closed, sometimes the hoot food can

The types of delivery bags used, include
• ordinary plastic bag
• multipurpose cloth bag
• backpack
• airtight bag similar to GoFood/GrabFood
• official delivery bags from GoFood / GrabFood

Always close the delivery bags tightly because:
• the food will not be contaminated
• The inside of the bag is kept clean both when in use and not in use
• It does have a zipper closure

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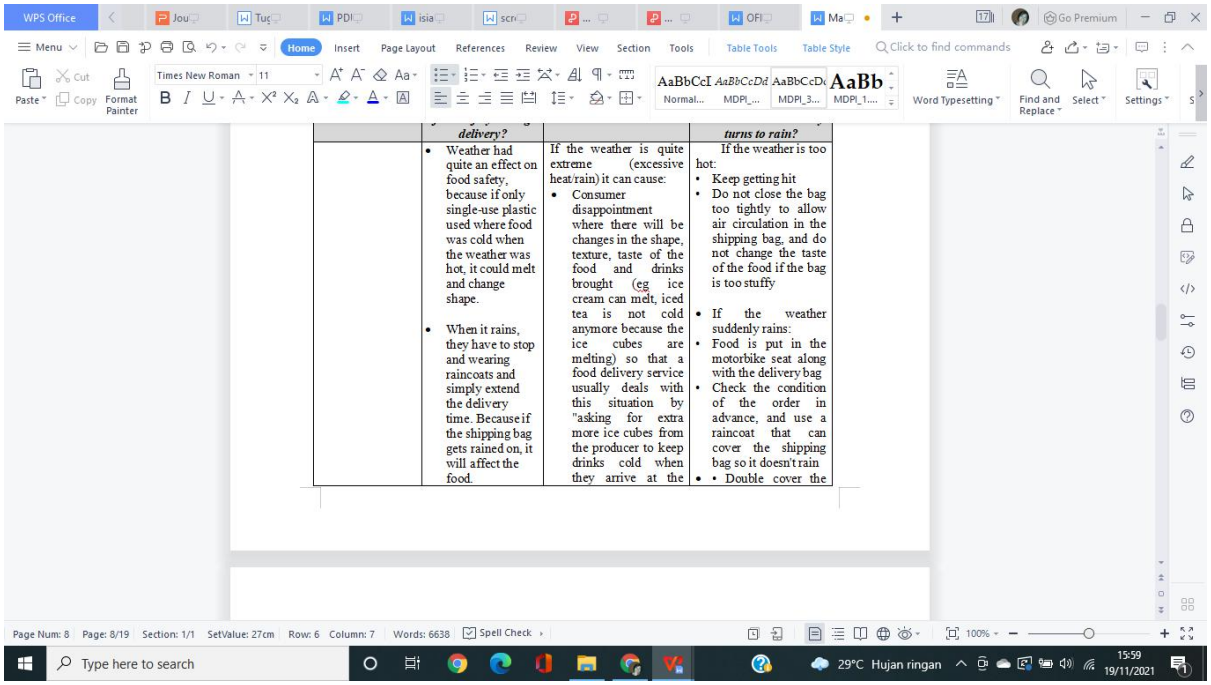
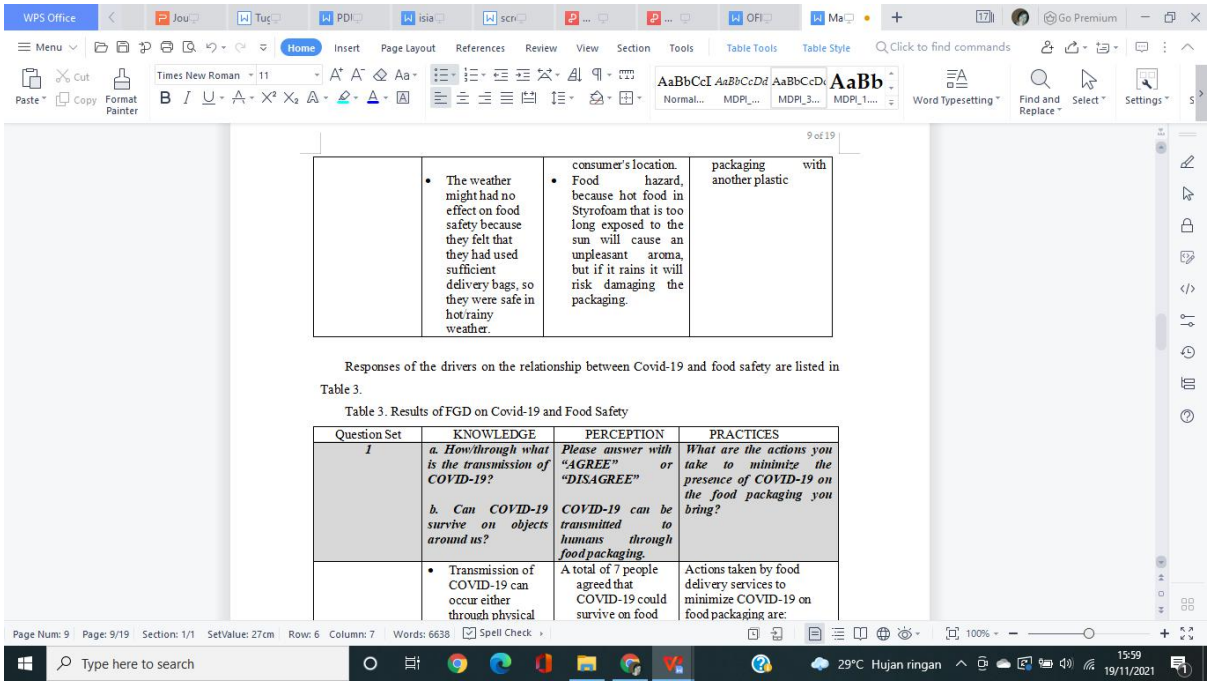
Responses of the drivers on factors which might affect the safety of food during delivery are listed in Table 2.

Table 2. Results of FGD on Factors Affecting the Safety of Food during Delivery

Question Set	KNOWLEDGE	PERCEPTION	PRACTICES
1	***Can the duration (time) of delivery affect food safety during the distribution?***	***Please answer with "AGREE" or "DISAGREE"*** ***If the finished food is delivered more than the proper time (more than 2 hours) it will change the taste and or make the food contaminated. (Both contamination from the surrounding environment, for example: hot food placed in styrofoam/ plastic for too long can be harmful to health)***	***According to your experience, how long does it take (on average) to deliver each GoFood/ GrabFood order to the consumer?*** ***What is the longest time you have ever experienced, and why did this happen?***
	Long duration/delivery time that exceeds the required time (eg 1-2 hours) can affect food safety during delivery: • container for a long time will be dangerous to consume • If the delivery time is too long, the food may change in terms of shape/physical, texture, taste when it arrives at the consumer's location (e.g. ice may melt, food becomes cold) • But so far, the company has time and distance limits, so that food will be delivered within a range of 20-30 minutes.	Agree, because the delivery of the food takes too long/too long not only changes the texture, taste (e.g. pizza that is too long will be hard, ice cream can melt) but can packaging box for too long (e.g. plastic can stick to food because it is too hot).	The average delivery time is 10-25 minutes The longest time is 35-120 minutes because: • Queuing at the restaurant
2	***How can temperature and weather (e.g. extreme heat or sudden rain) affect food safety during***	***What do you think will happen if the food you bring is exposed to direct sunlight / wet due to rain water?***	***What do you usually do to maintain the safety of the food you bring, if the outside temperature is too hot or the weather suddenly***



	delivery?		***turns to rain?***
	• Weather had quite an effect on food safety, because if only single-use plastic used where food was cold when the weather was hot, it could melt and change shape. • When it rains, they have to stop and wearing raincoats and simply extend the delivery time. Because if the shipping bag gets rained on, it will affect the food.	If the weather is quite extreme (excessive heat/rain) it can cause: • Consumer disappointment where there will be changes in the shape, texture, taste of the food and drinks brought (eg ice cream can melt, iced tea is not cold anymore because the ice cubes are melting) so that a food delivery service usually deals with this situation by "asking for extra more ice cubes from the producer to keep drinks cold when they arrive at the	If the weather is too hot: • Keep getting hit • Do not close the bag too tightly to allow air circulation in the shipping bag, and do not change the taste of the food if the bag is too stuffy • If the weather suddenly rains: • Food is put in the motorbike seat along with the delivery bag • Check the condition of the order in advance, and use a raincoat that can cover the shipping bag so it doesn't rain • • Double cover the

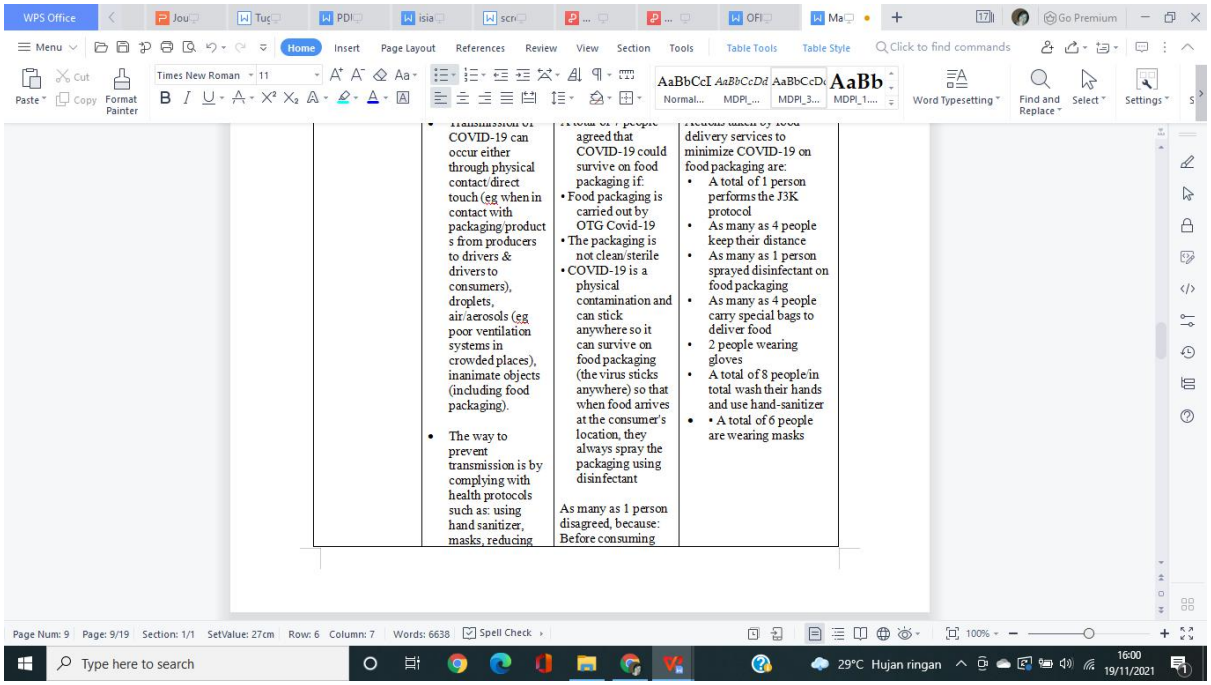


	• The weather might had no effect on food safety because they felt that they had used sufficient delivery bags, so they were safe in hot/rainy weather.	consumer's location. • Food hazard, because hot food in Styrofoam that is too long exposed to the sun will cause an unpleasant aroma, but if it rains it will risk damaging the packaging.	packaging with another plastic

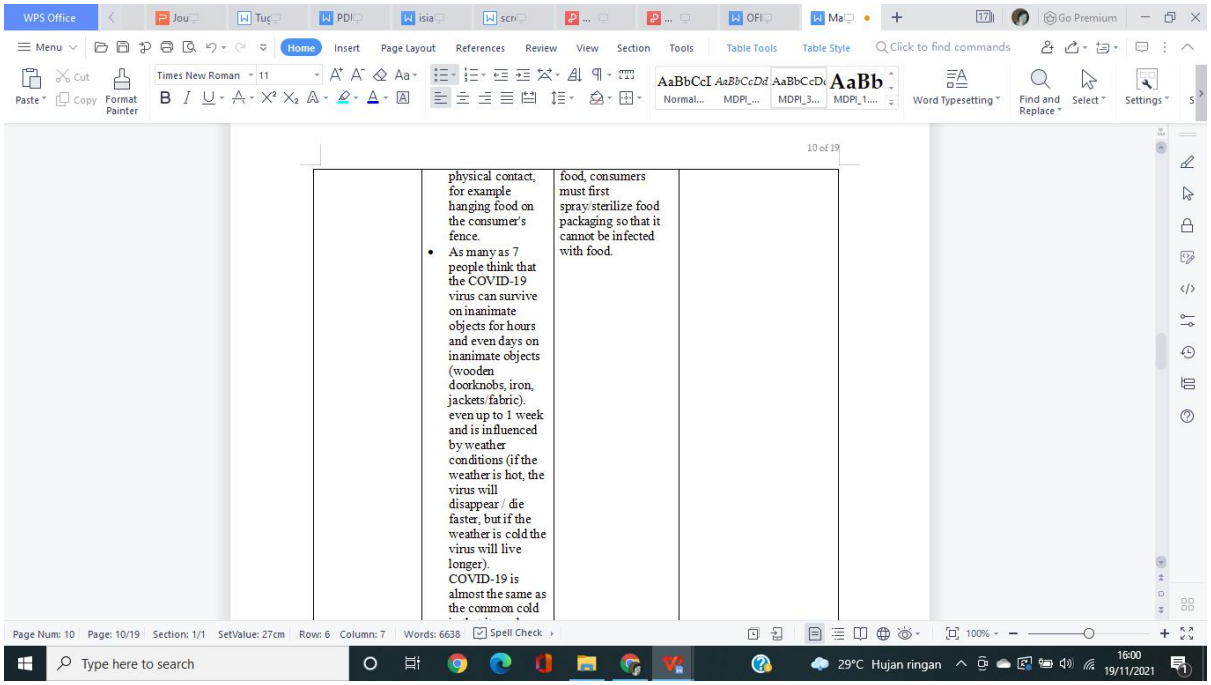
Responses of the drivers on the relationship between Covid-19 and food safety are listed in Table 3.

Table 3. Results of FGD on Covid-19 and Food Safety

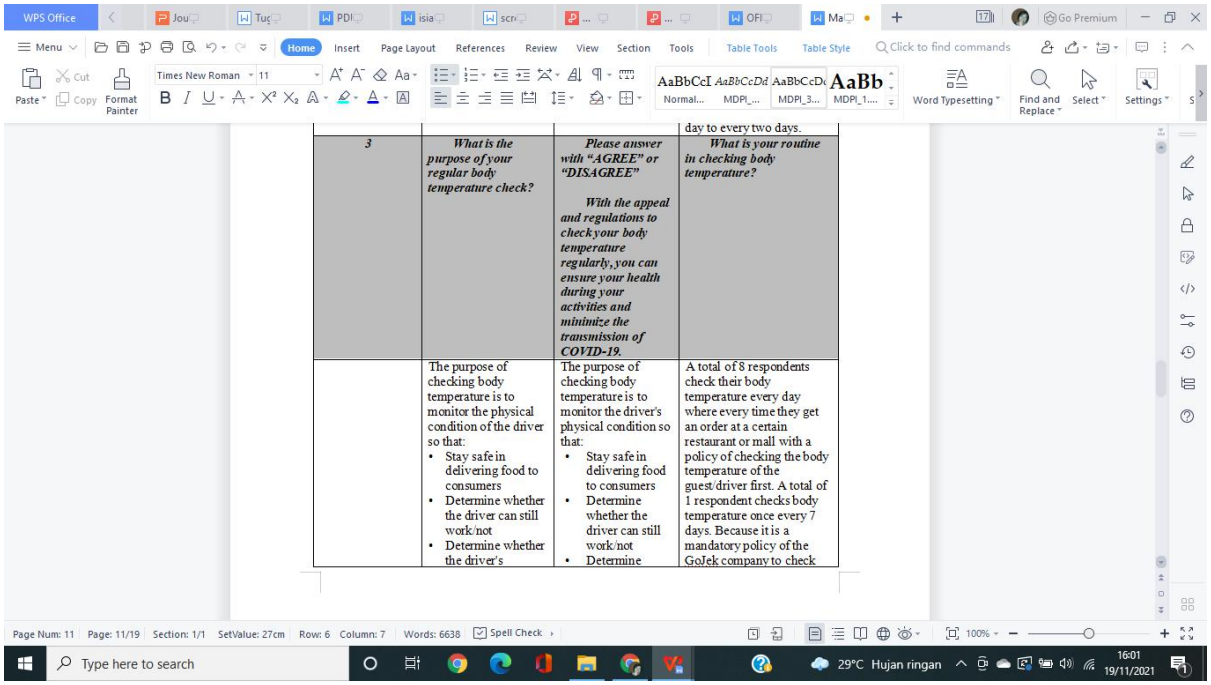
Question Set	KNOWLEDGE	PERCEPTION	PRACTICES
1	***a. How/through what is the transmission of COVID-19?*** ***b. Can COVID-19 survive on objects around us?***	***Please answer with "AGREE" or "DISAGREE"*** ***COVID-19 can be transmitted to humans through food packaging.***	***What are the actions you take to minimize the presence of COVID-19 on the food packaging you bring?***
	• Transmission of COVID-19 can occur either through physical	A total of 7 people agreed that COVID-19 could survive on food	Actions taken by food delivery services to minimize COVID-19 on food packaging are:



	• Transmission of COVID-19 can occur either through physical contact/direct touch (eg when in contact with packaging/products from producers to drivers & drivers to consumers), droplets, air/aerosols (eg poor ventilation systems in crowded places), inanimate objects (including food packaging). • The way to prevent transmission is by complying with health protocols such as: using hand sanitizer, masks, reducing	A total of 7 people agreed that COVID-19 could survive on food packaging if: • Food packaging is carried out by OTG Covid-19 • The packaging is not clean/sterile • COVID-19 is a physical contamination and can stick anywhere so it can survive on food packaging (the virus sticks anywhere) so that when food arrives at the consumer's location, they always spray the packaging using disinfectant As many as 1 person disagreed, because: Before consuming	Actions taken by food delivery services to minimize COVID-19 on food packaging are: • A total of 1 person performs the J3K protocol • As many as 4 people keep their distance • As many as 1 person sprayed disinfectant on food packaging • As many as 4 people carry special bags to deliver food • 2 people wearing gloves • A total of 8 people in total wash their hands and use hand-sanitizer • • A total of 6 people are wearing masks

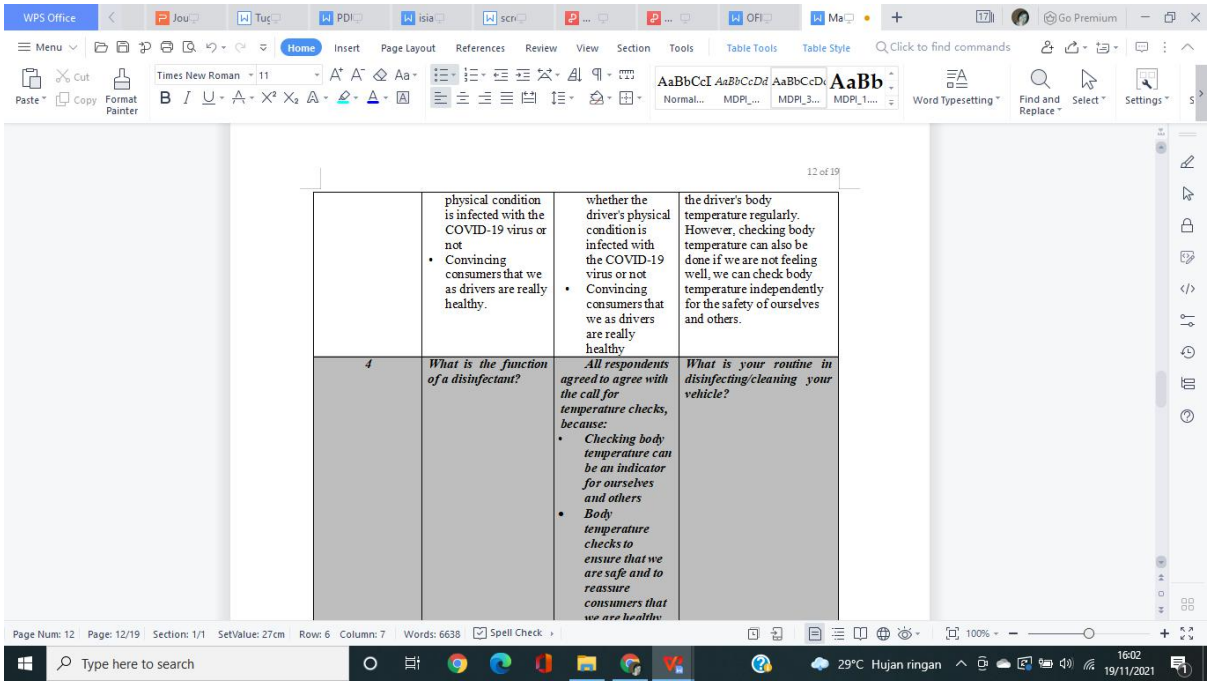


	physical contact, for example hanging food on the consumer's fence. • As many as 7 people think that the COVID-19 virus can survive on inanimate objects for hours and even days on inanimate objects (wooden doorknobs, iron, jackets/fabric). even up to 1 week and is influenced by weather conditions (if the weather is hot, the virus will disappear / die faster, but if the weather is cold the virus will live longer). COVID-19 is almost the same as the common cold	food, consumers must first spray/sterilize food packaging so that it cannot be infected with food.	

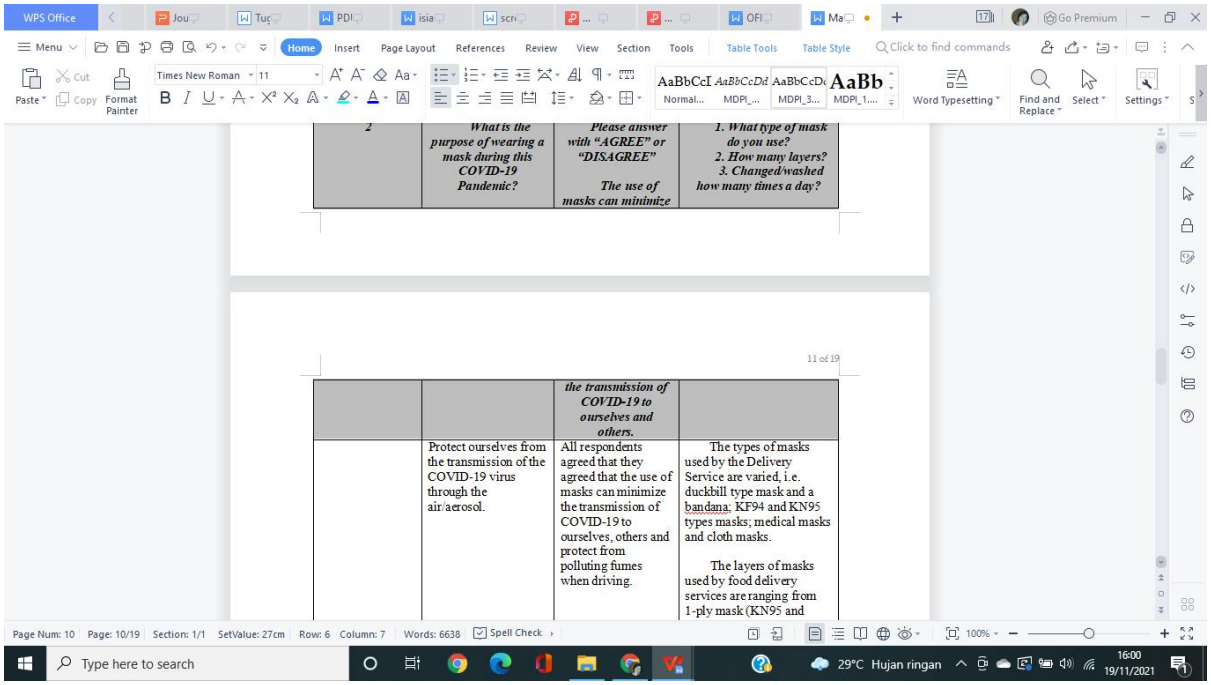


day to every two days.

3	***What is the purpose of your regular body temperature check?***	***Please answer with "AGREE" or "DISAGREE"*** ***With the appeal and regulations to check your body temperature regularly, you can ensure your health during your activities and minimize the transmission of COVID-19.***	***What is your routine in checking body temperature?***
	The purpose of checking body temperature is to monitor the physical condition of the driver so that: • Stay safe in delivering food to consumers • Determine whether the driver can still work/not • Determine whether the driver's	The purpose of checking body temperature is to monitor the driver's physical condition so that: • Stay safe in delivering food to consumers • Determine whether the driver can still work/not • Determine	A total of 8 respondents check their body temperature every day where every time they get an order at a certain restaurant or mall with a policy of checking the body temperature of the guest/driver first. A total of 1 respondent checks body temperature once every 7 days. Because it is a mandatory policy of the GoJek company to check

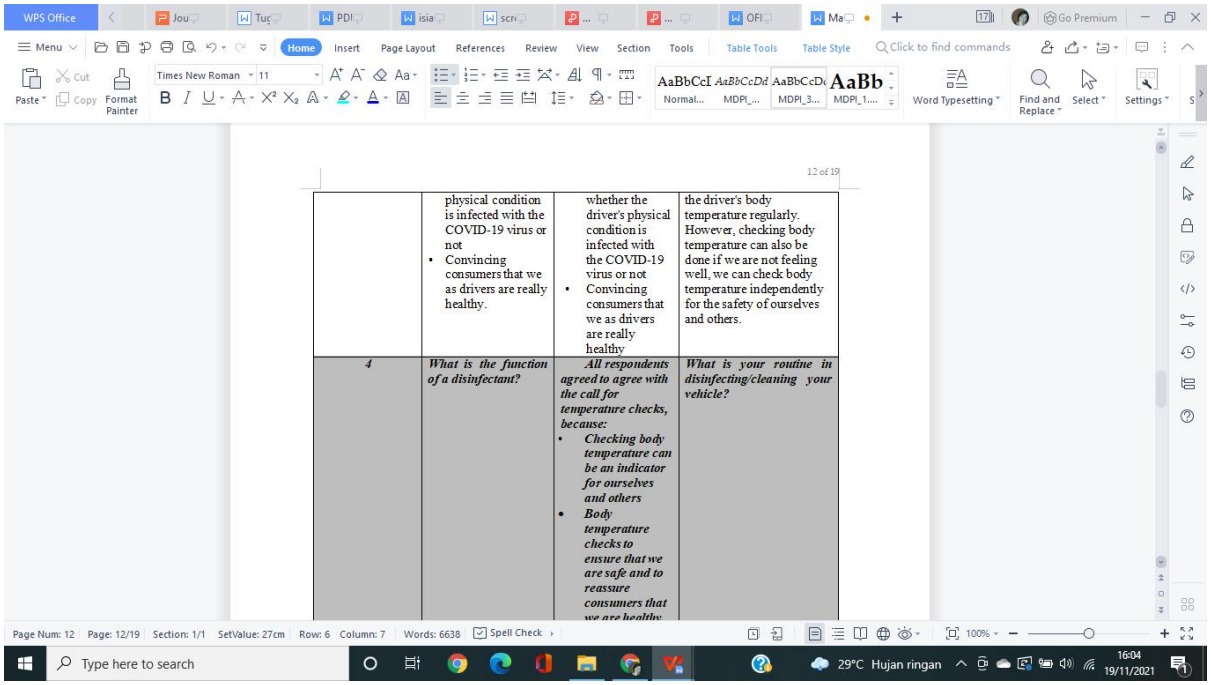


	physical condition is infected with the COVID-19 virus or not • Convincing consumers that we as drivers are really healthy.	whether the driver's physical condition is infected with the COVID-19 virus or not • Convincing consumers that we as drivers are really healthy	the driver's body temperature regularly. However, checking body temperature can also be done if we are not feeling well, we can check body temperature independently for the safety of ourselves and others.
4	***What is the function of a disinfectant?***	***All respondents agreed to agree with the call for temperature checks, because:*** • ***Checking body temperature can be an indicator for ourselves and others*** • ***Body temperature checks to ensure that we are safe and to reassure consumers that we are healthy***	***What is your routine in disinfecting/cleaning your vehicle?***

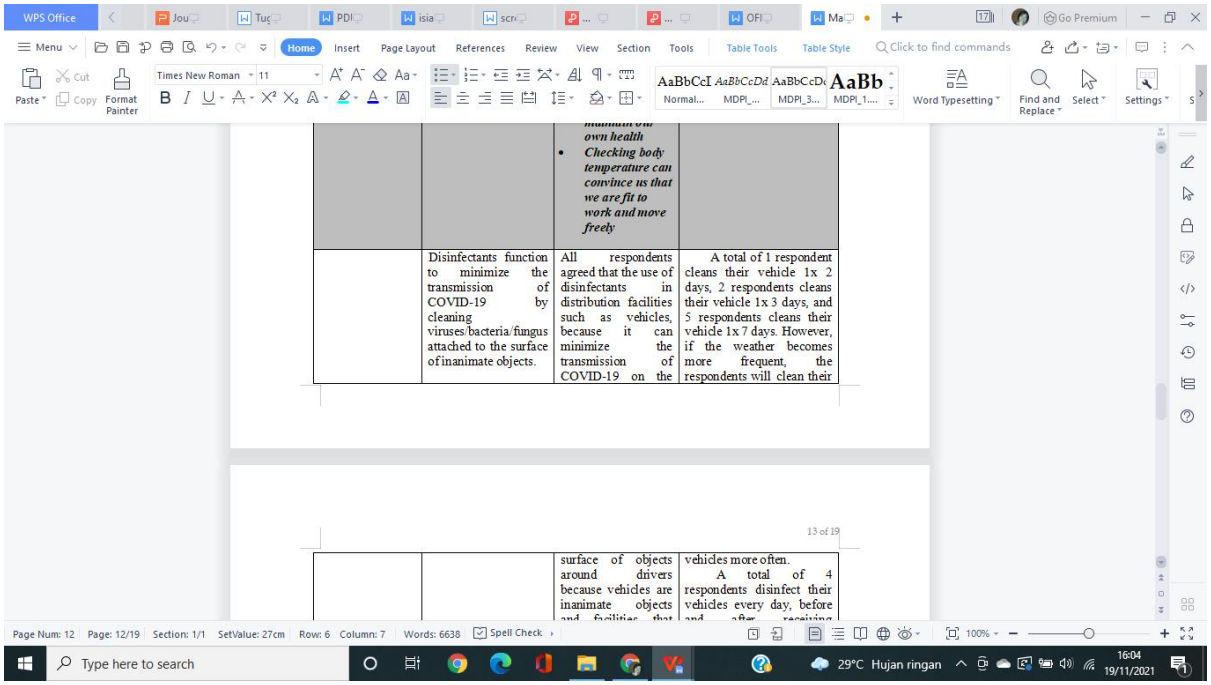


2	*What is the purpose of wearing a mask during this COVID-19 Pandemic?*	*Please answer with "AGREE" or "DISAGREE"* *The use of masks can minimize*	*1. What type of mask do you use?* *2. How many layers?* *3. Changed/washed how many times a day?*

		the transmission of COVID-19 to ourselves and others.	
	Protect ourselves from the transmission of the COVID-19 virus through the air/aerosol.	All respondents agreed that they agreed that the use of masks can minimize the transmission of COVID-19 to ourselves, others and protect from polluting fumes when driving.	The types of masks used by the Delivery Service are varied, i.e. duckbill type mask and a bandana; KF94 and KN95 types masks; medical masks and cloth masks. The layers of masks used by food delivery services are ranging from 1-ply mask (KN95 and

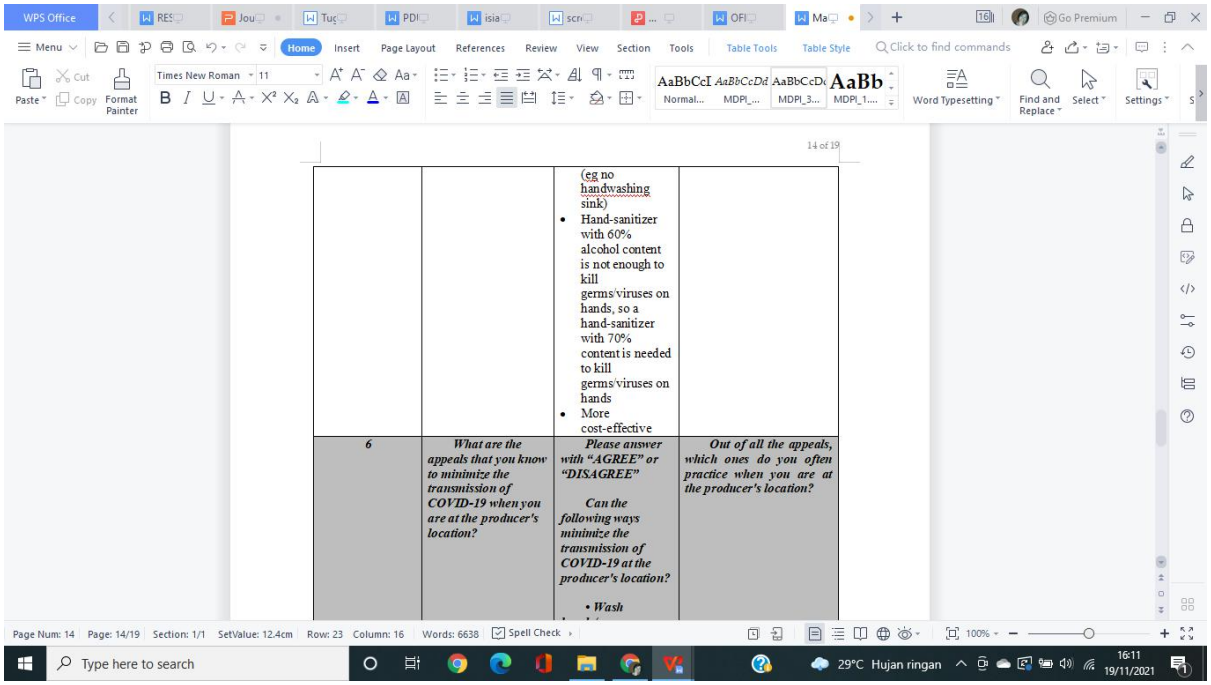


	physical condition is infected with the COVID-19 virus or not • Convincing consumers that we as drivers are really healthy.	whether the driver's physical condition is infected with the COVID-19 virus or not • Convincing consumers that we as drivers are really healthy	the driver's body temperature regularly. However, checking body temperature can also be done if we are not feeling well, we can check body temperature independently for the safety of ourselves and others.
4	*What is the function of a disinfectant?*	*All respondents agreed to agree with the call for temperature checks, because:* • *Checking body temperature can be an indicator for ourselves and others* • *Body temperature checks to ensure that we are safe and to reassure consumers that we are healthy*	*What is your routine in disinfecting/cleaning your vehicle?*

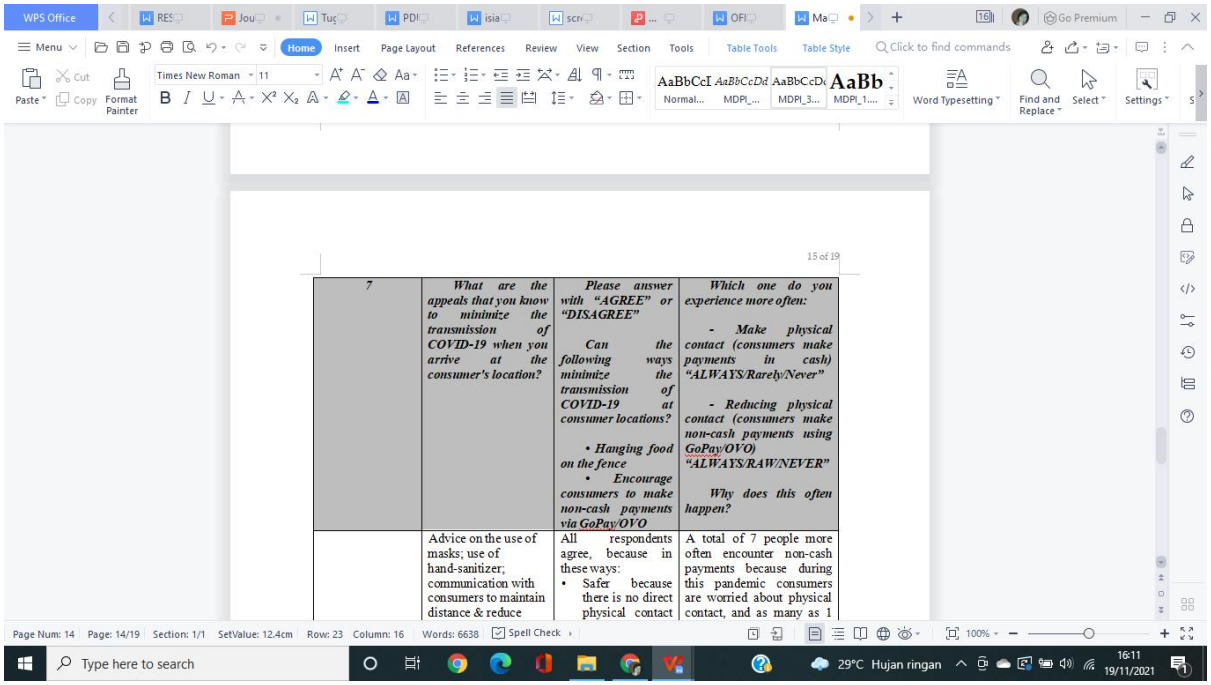


		• *Checking body temperature can convince us that we are fit to work and move freely*	
	Disinfectants function to minimize the transmission of COVID-19 by cleaning viruses/bacteria/fungus attached to the surface of inanimate objects.	All respondents agreed that the use of disinfectants in distribution facilities such as vehicles, because it can minimize the transmission of COVID-19 on the	A total of 1 respondent cleans their vehicle 1x 2 days, 2 respondents cleans their vehicle 1x 3 days, and 5 respondents cleans their vehicle 1x 7 days. However, if the weather becomes more frequent, the respondents will clean their

		surface of objects around drivers because vehicles are inanimate objects	vehicles more often. A total of 4 respondents disinfect their vehicles every day, before



		(eg no handwashing sink) • Hand-sanitizer with 60% alcohol content is not enough to kill germs/viruses on hands, so a hand-sanitizer with 70% content is needed to kill germs/viruses on hands • More cost-effective	
6	***What are the appeals that you know to minimize the transmission of COVID-19 when you are at the producer's location?***	***Please answer with "AGREE" or "DISAGREE"*** ***Can the following ways mininize the transmission of COVID-19 at the producer's location?*** • *Wash*	***Out of all the appeals, which ones do you often practice when you are at the producer's location?***



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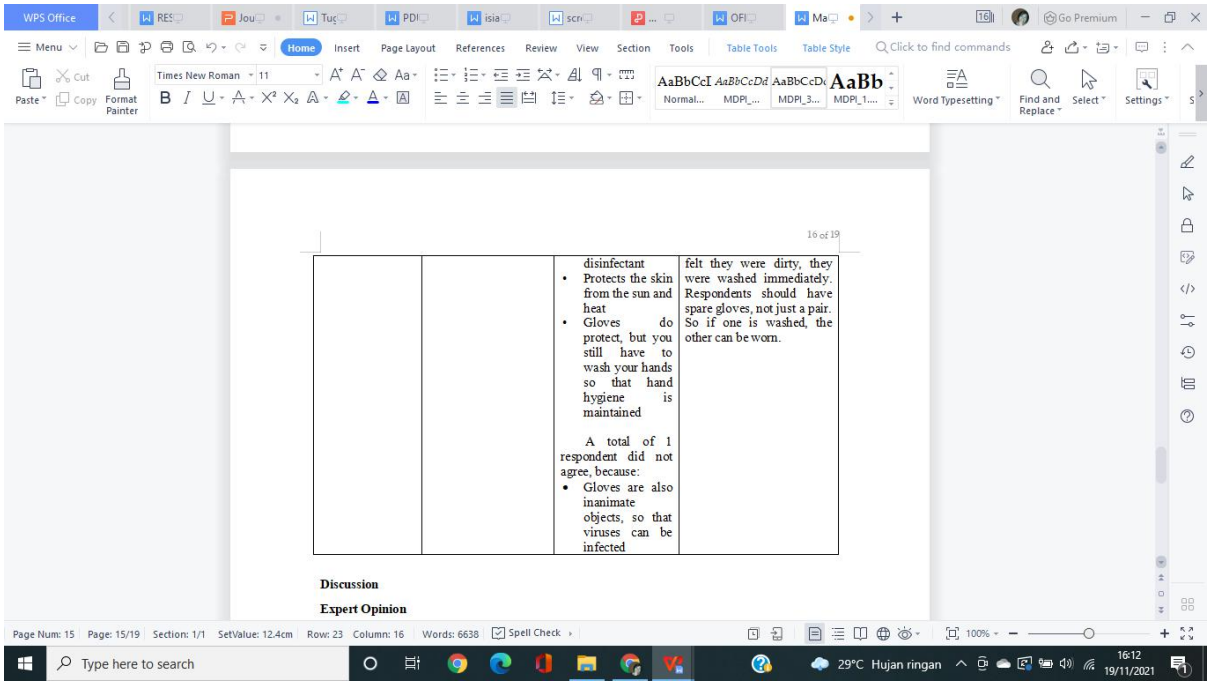
7	***What are the appeals that you know to minimize the transmission of COVID-19 when you arrive at the consumer's location?***	***Please answer with "AGREE" or "DISAGREE"*** ***Can the following ways minimize the transmission of COVID-19 at consumer locations?*** ***• Hanging food on the fence*** ***• Encourage consumers to make non-cash payments via GoPay/OVO***	***Which one do you experience more often:*** ***- Make physical contact (consumers make payments in cash) "ALWAYS/Rarely/Never"*** ***- Reducing physical contact (consumers make non-cash payments using GoPay/OVO) "ALWAYS/RAW/NEVER"*** ***Why does this often happen?***
	Advice on the use of masks; use of hand-sanitizer; communication with consumers to maintain distance & reduce	All respondents agree, because in these ways: • Safer because there is no direct physical contact	A total of 7 people more often encounter non-cash payments because during this pandemic consumers are worried about physical contact, and as many as 1



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		disinfectant • Protects the skin from the sun and heat • Gloves do protect, but you still have to wash your hands so that hand hygiene is maintained A total of 1 respondent did not agree, because: • Gloves are also inanimate objects, so that viruses can be infected	felt they were dirty, they were washed immediately. Respondents should have spare gloves, not just a pair. So if one is washed, the other can be worn.

Discussion

Expert Opinion

Discussion

Expert Opinion

Expert opinions gathered in the Delphi session are summarized below.

Sars-Cov2 has the ability to survive in food, including food packaging (plastic, cardboard, stainless steel) but for a certain period of time. If the producer, the food delivery person does not carry out the procedure and is in a sick condition, there may be transmission to the food or the surface of the food packaging. However, until now it has not been confirmed that this can pose a big risk because the transmission of Sars-Cov2 can be influenced by several things, such as: (1) The amount of virus that enters the food/sticks to the surface of the packaging, (2) temperature, (3) relative humidity, (4) pH, and (5) application of health protocols by producers, food delivery parties and consumers.

The chances of SARS-CoV-2 in contaminating food tend to be low (depending on the amount of virus, the procedures implemented by the three stakeholders, handling of food before consumption, and contact with the delivery person). All stakeholders (producers, food delivery parties & consumers) have their respective roles in reducing/increasing the possibility of contamination that will arise. Chances of contamination to food can come from (1). mouth and droplets from food handlers (manufacturers), (2). hand food handler (manufacturer), (3). food packaging/boxes, (4) food production sites, (5) application of consumer, producer, and delivery procedures, (6) consumer actions before consuming food, and (7) contamination opportunities can come from the three stakeholders (producers, food delivery parties). & consumers).

Some efforts (good practices) and health protocols must always be emphasized on food delivery parties, companies such as GoJek & Grab must often provide education-evaluation to food delivery

sanitizers, and (3) wearing masks. Food delivery people are not allowed to take off their masks wherever they are when they are working. In this case, removing the mask is the same as opening the opportunity for transmission of the virus.

Disinfection should be carried out as often as possible, especially after work it must be cleaned immediately and the delivery person must not put personal items in the delivery bag to prevent cross-contamination of food. The use of gloves needs to be seen from certain conditions. If direct contact with food must be changed at least every 2 hours if and cannot handle anything other than food for 2 hours and must be accompanied by hand washing steps.

The use of masks is the first step and the most important step in minimizing the transmission of SARS-CoV-2, but it must also be followed by the correct way of using a mask, namely wearing a mask tightly covering the nose and mouth, double mask (3 ply medical mask (inside) and cloth)), 4 ply or 5 ply medical masks are enough, 1 does not need to be doubled, the inner surface of the mask is well maintained when not in use (eg put in a mask wallet/inside closed), mask replacement is carried out at least once a day or every 4 hours if activities outside the room, and the application of diligent hand washing is still carried out.

The correct method of hand hygiene is (1). not open the water faucet by hand, but with a sensor/footrest, (2). rinse hands with running water, rub hands with soap according to WHO recommendations, and (3) wash hands with soap for 20 seconds.

Using the correct hand drying method, namely by drying hands on a hand-dryer (single use towel) then followed by the use of a hand-zanitizer. The solution for alcohol sensitive hands is (1). frequent hand washing, (2). mixing hand sanitizer with aloe vera, (3). the use of chlorhexidine-based hand sanitizers, (4). Use of lotion after using hand sanitizer (preventive action), (5). the use of special types of laundry soap for sensitive skin, and (6). use of the hand washing facilities in the restaurant

According to experts, SARS-CoV-2 has the opportunity to contaminate food if the producer and delivery service are infected people and then do not carry out health protocols properly and there are droplets that then appear and stick. Certain types of packaging can make the SARS-CoV-2 virus last a long time on the packaging, for example: cardboard, styrofoam, plastic (4 days at most), and paper (3 hours). The type of packaging does not really affect the spread of the SARS-CoV-2 virus, because in the end the packaging will be discarded (both primary/secondary).

Compatibility between Results of FGD and Delphi Session

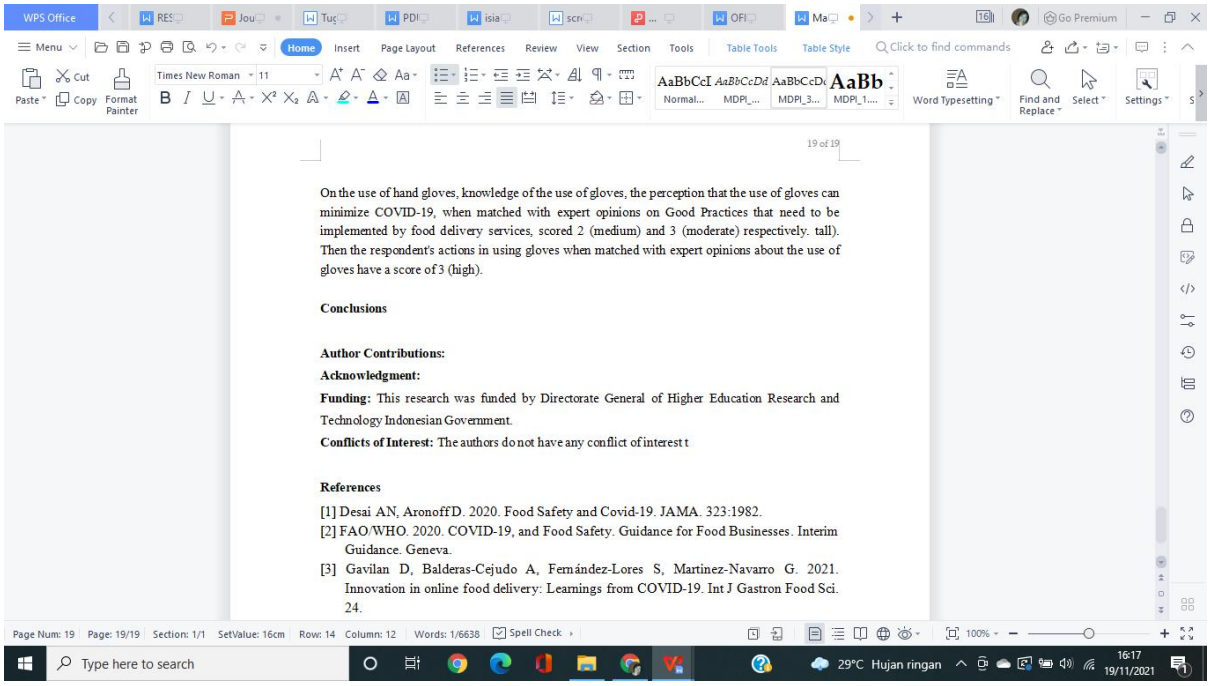
Compatibility between the responses of the respondents collected from the FGD and the opinions of the experts extracted from the Delphi session is summarized below.

On the survival & transmission of SARS-CoV-2, matched with expert opinion about the ability & factors that influence the survival of SARS-CoV-2 has a score of 2 (medium), then on the perception that COVID-19 can be transmitted through packaging, matched with expert opinion the

need to be implemented by food delivery services each have a score of 3 (high).

On the safety warning at the seller premise, the perception of several appeals such as: not making physical contact (maintaining distance, non-cash payments) and washing hands before and after entering a restaurant can minimize COVID-19, if it is matched with expert opinion about the possibility of contamination SARS-CoV-2 in food scored 3 (high) and 2 (moderate), respectively. Then the respondent's actions while at the producer's location when matched with expert opinions on Good Practices that need to be implemented by food delivery services have a score of 3 (high).

On the warnings at the consumer's location knowledge of the appeal at the consumer's location, the perception of several appeals such as: not making physical contact (maintaining distance, non-cash payments) can minimize COVID-19, if it is matched with expert opinion about the possibility of SARS-CoV contamination -2 on food scored 3 (high) and 1 (low) respectively. Then the respondent's actions while at the consumer's location (payment in cash/non-cash) when matched with expert opinions on Good Practices that need to be implemented by food delivery services have a score of 2 (medium).



On the use of hand gloves, knowledge of the use of gloves, the perception that the use of gloves can minimize COVID-19, when matched with expert opinions on Good Practices that need to be implemented by food delivery services, scored 2 (medium) and 3 (moderate) respectively. tall). Then the respondent's actions in using gloves when matched with expert opinions about the use of gloves have a score of 3 (high).

Conclusions

Author Contributions:

Acknowledgment:

Funding: This research was funded by Directorate General of Higher Education Research and Technology Indonesian Government.

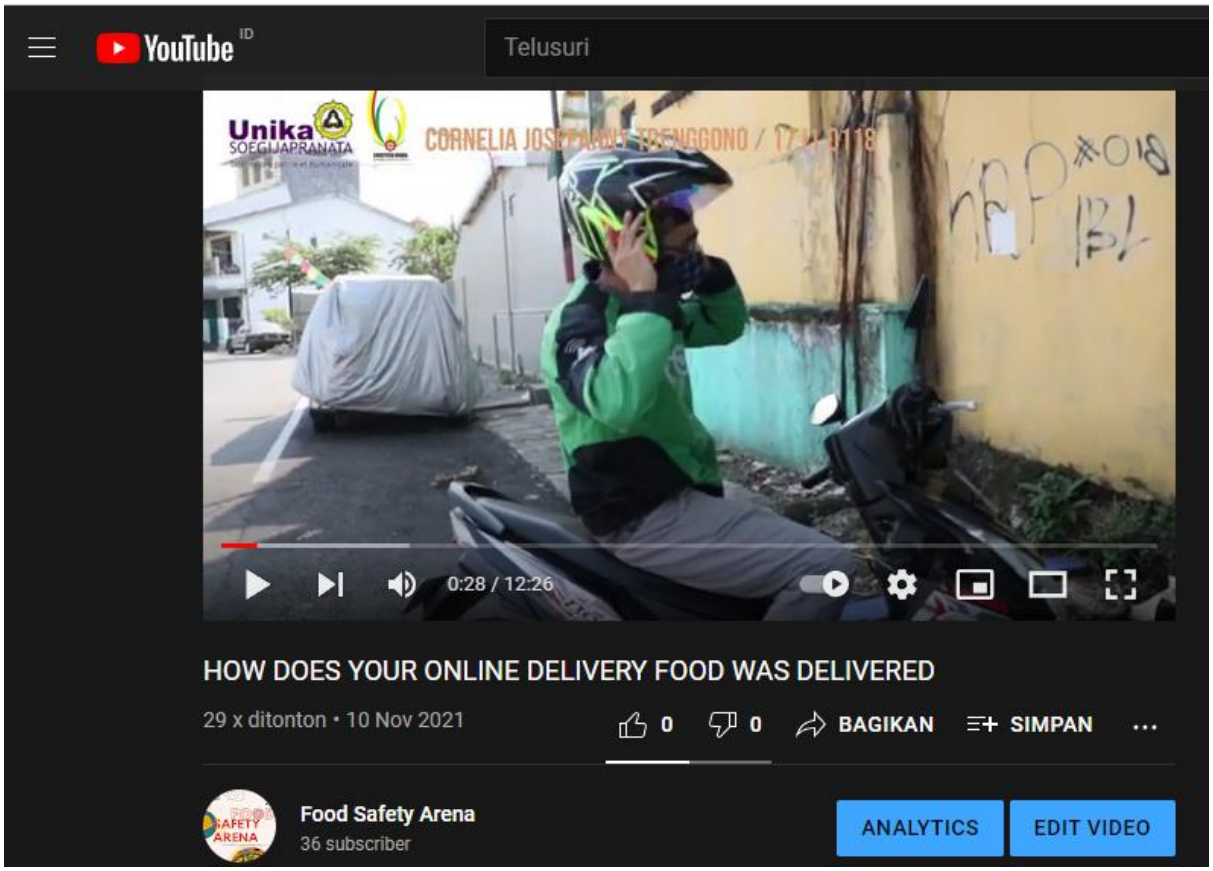
Conflicts of Interest: The authors do not have any conflict of interest t

References

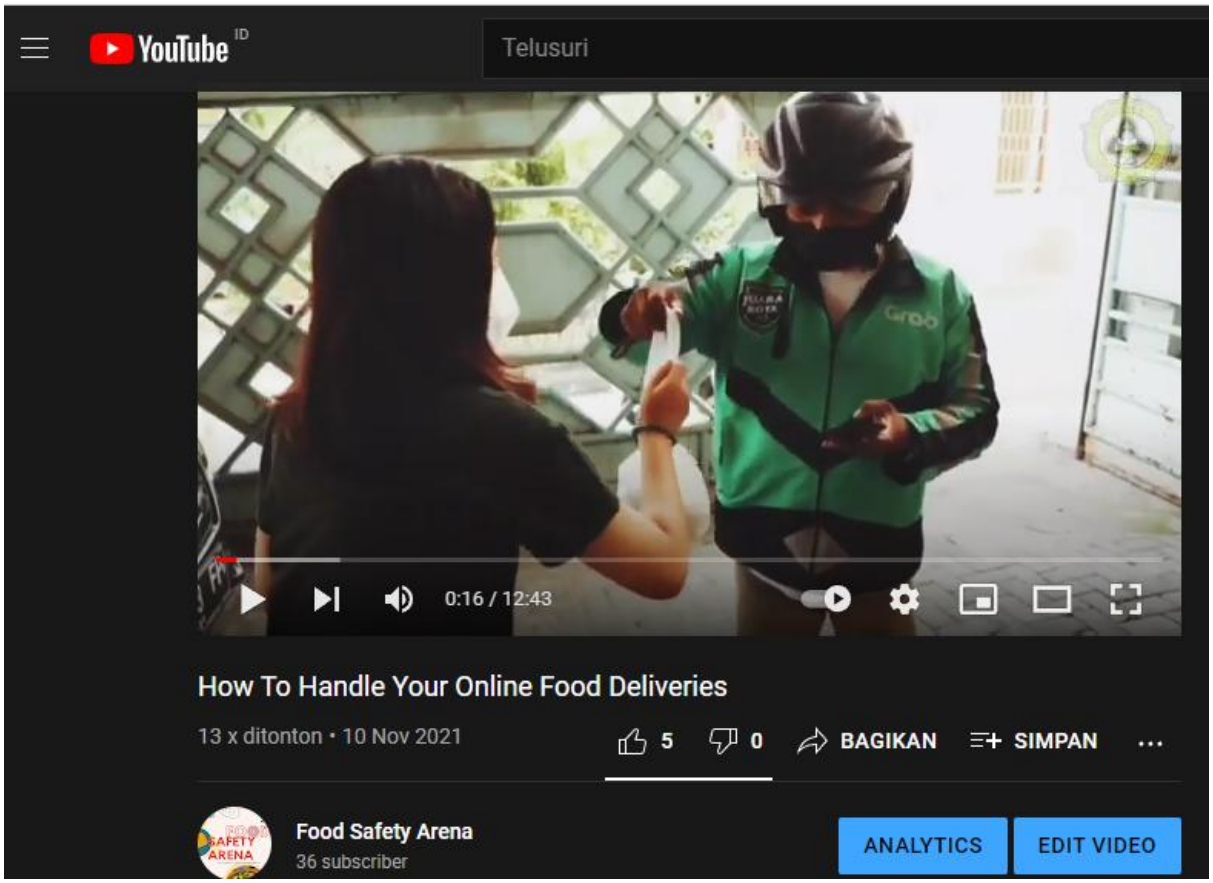
[1] Desai AN, Aronoff D. 2020. Food Safety and Covid-19. JAMA. 323:1982.
[2] FAO/WHO. 2020. COVID-19, and Food Safety. Guidance for Food Businesses. Interim Guidance. Geneva.
[3] Gavilan D, Balderas-Cejudo A, Fernández-Lores S, Martinez-Navarro G. 2021. Innovation in online food delivery: Learnings from COVID-19. Int J Gastron Food Sci. 24.

Luaran lainnya adalah tiga materi video pembelajaran untuk Matakuliah Keamanan Pangan :

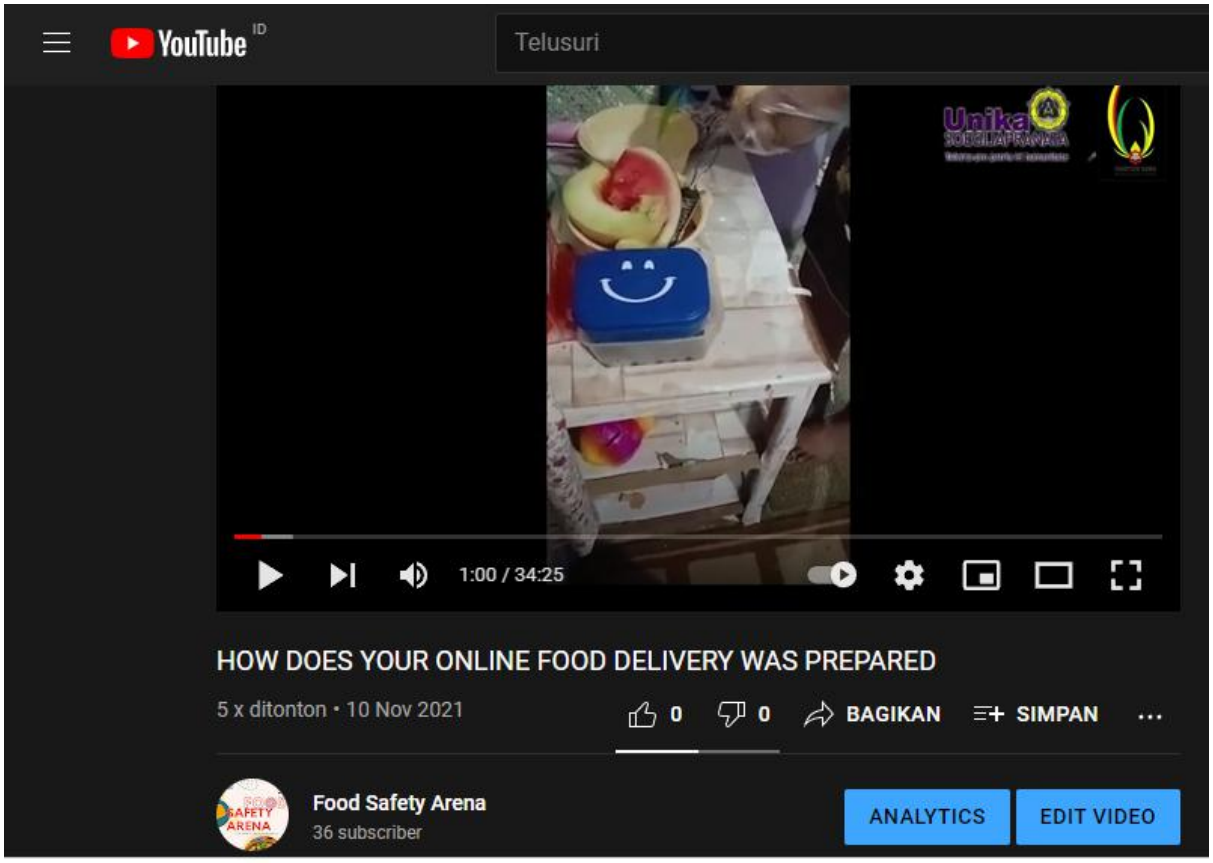
1. Berjudul *How does your Online Delivery Food was prepared* (link youtube https://youtu.be/DRms967JAZo)



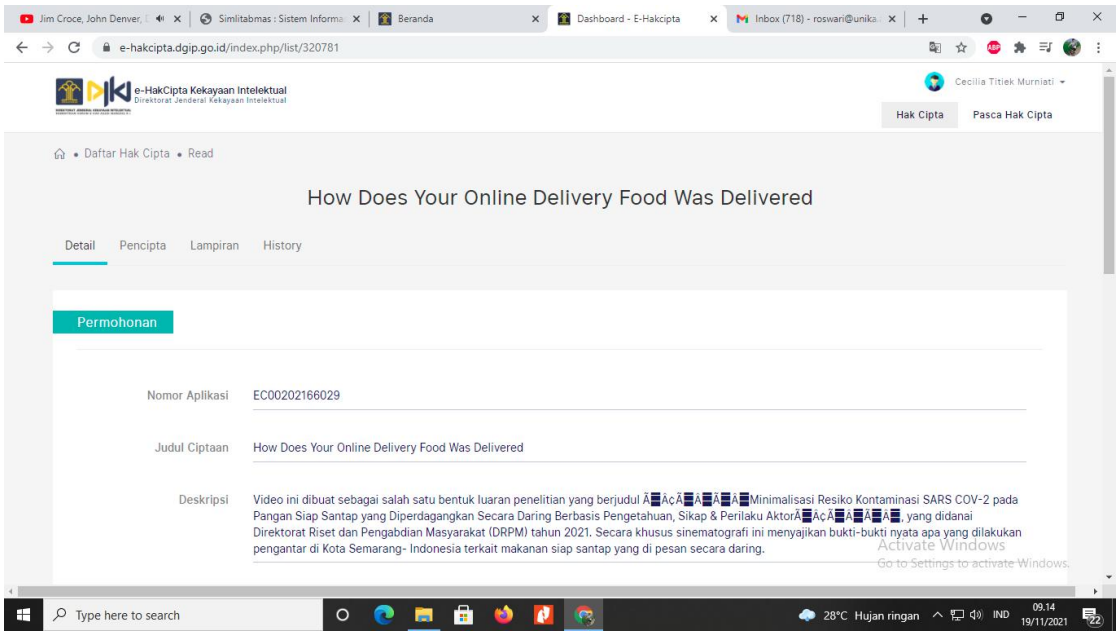
2. Video sinematografi berjudul *How does your Online Delivery Food was delivered* (link youtube https://youtu.be/LUtpvdML480.

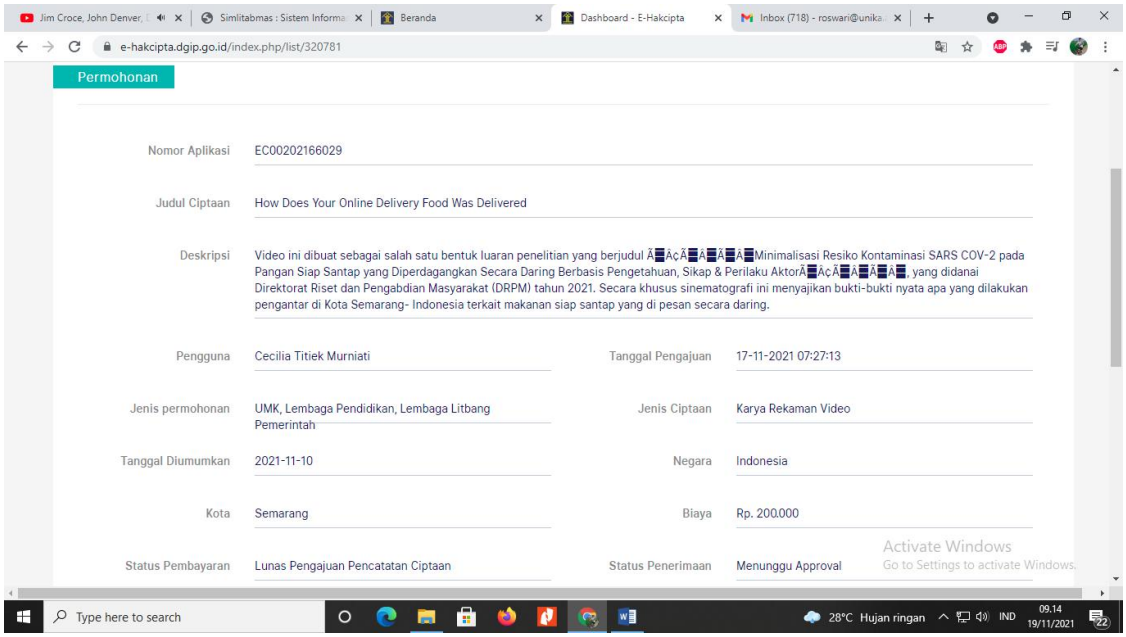


3. Video sinematografi berjudul *How to handle your Online Food Deliveries* (link youtube https://youtu.be/XcMI0evFnco.



Ketiga video pembelajaran untuk Matakuliah Keamanan Pangan terkait *Good Practices* tersebut telah didaftarkan untuk mendapatkan Sertifikat Hak Cipta. Terlampir bukti pendaftaran :

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Judul Ciptaan
How Does Your Online Delivery Food Was Delivered
Deskripsi
Video ini dibuat sebagai salah satu bentuk luaran penelitian yang berjudul Ã▀ÃçÃ▀Ã▀Ã▀Ã▀Minimalisasi Resiko Kontaminasi SARS COV-2 pada Pangan Siap Santap yang Diperdagangkan Secara Daring Berbasis Pengetahuan, Sikap & Perilaku AktorÃ▀ÃçÃ▀Ã▀Ã▀Ã▀, yang didanai Direktorat Riset dan Pengabdian Masyarakat (DRPM) tahun 2021. Secara khusus sinematografi ini menyajikan bukti-bukti nyata apa yang dilakukan pengantar di Kota Semarang- Indonesia terkait makanan siap santap yang di pesan secara daring.
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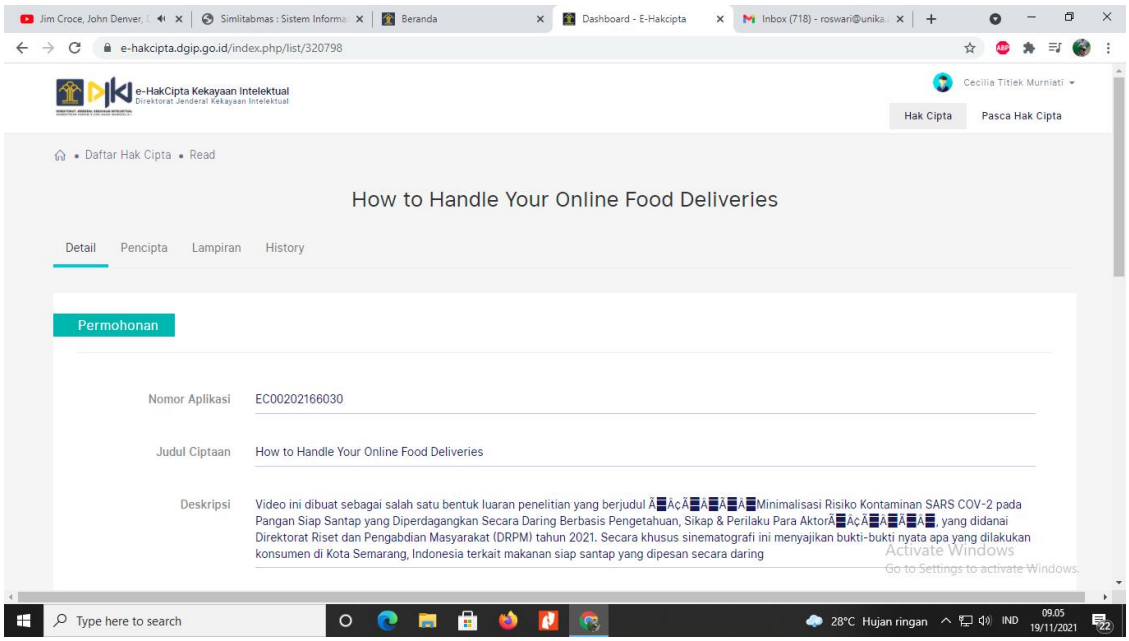
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Deskripsi
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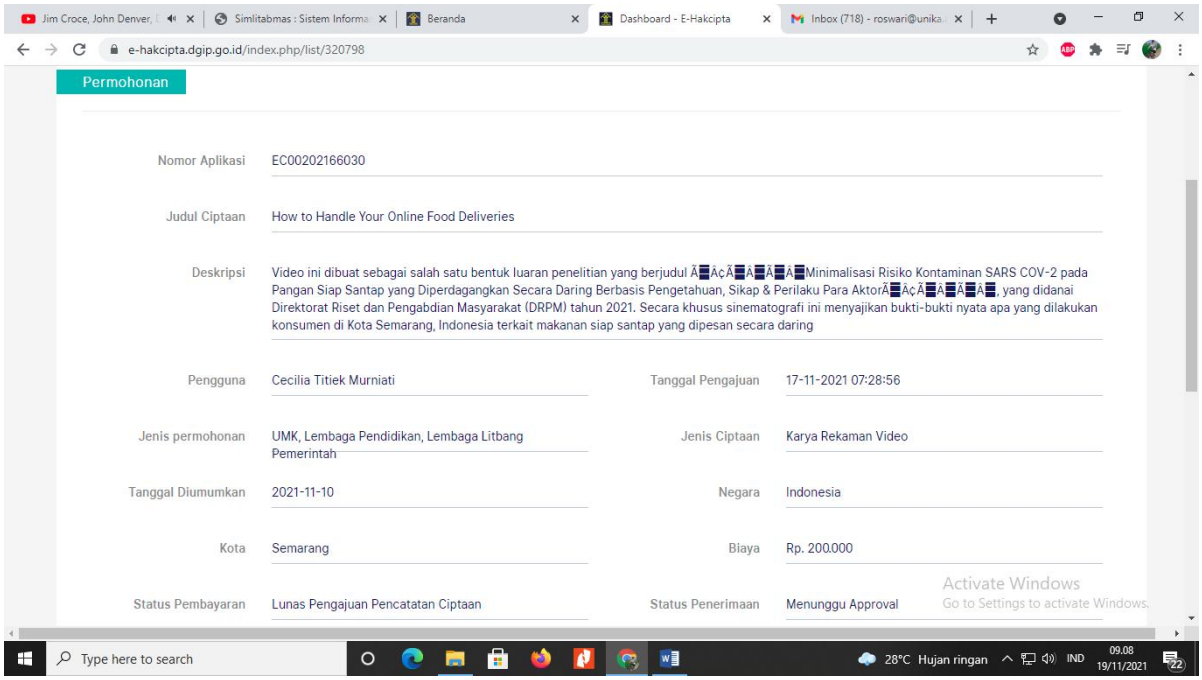


E. **PERAN MITRA:** Tuliskan realisasi kerjasama dan kontribusi Mitra baik *in-kind* maupun *in-cash* (untuk Penelitian Terapan, Penelitian Pengembangan, PTUPT, PPUPT serta KRUPT). Bukti pendukung realisasi kerjasama dan realisasi kontribusi mitra dilaporkan sesuai dengan kondisi yang sebenarnya. Bukti dokumen realisasi kerjasama dengan Mitra diunggah melalui Simlitabmas.

Skim penelitian ini adalah PDUPT yang tidak mewajibkan kerjasama dan kontribusi mitra.

F. **KENDALA PELAKSANAAN PENELITIAN**: Tuliskan kesulitan atau hambatan yang dihadapi selama melakukan penelitian dan mencapai luaran yang dijanjikan, termasuk penjelasan jika pelaksanaan penelitian dan luaran penelitian tidak sesuai dengan yang direncanakan atau dijanjikan.

Dua hal yang dirasakan tim peneliti menjadi kendala untuk pencapaian luaran seperti yang dijanjikan adalah:

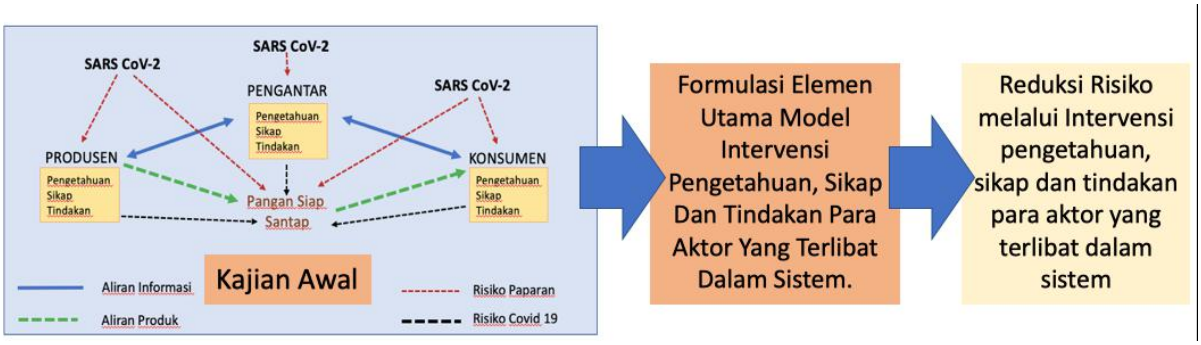
1. Pencairan dana penelitian yang tertunda selama hampir 5 bulan (dijanjikan dana dapat cair pada bulan April 2021, namun pada kenyataannya pencairan dari LLDIKTI baru terjadi pada pertengahan bulan September 2021), sehingga pengumpulan data melalui FGD dan Delphi juga terpaksa mundur dari jadwal.

2. Alokasi waktu yang tersedia terhitung dari saat pencairan dana penelitian hingga pengumpulan laporan praktis hanya 2 bulan. Durasi tersebut jauh lebih pendek dibandingkan jadwal pelaksanaan penelitian yang direncanakan. Salah satu akibat dari pendeknya alokasi waktu ini adalah tidak maksimalnya luaran khususnya publikasi di jurnal internasional seperti yang ditargetkan.

G. **RENCANA TAHAPAN SELANJUTNYA:** Tuliskan dan uraikan rencana penelitian di tahun berikutnya berdasarkan indikator luaran yang telah dicapai, rencana realisasi luaran wajib yang dijanjikan dan tambahan (jika ada) di tahun berikutnya serta *roadmap* penelitian keseluruhan. Pada bagian ini diperbolehkan untuk melengkapi penjelasan dari setiap tahapan dalam metoda yang akan direncanakan termasuk jadwal berkaitan dengan strategi untuk mencapai luaran seperti yang telah dijanjikan dalam proposal. Jika diperlukan, penjelasan dapat juga dilengkapi dengan gambar, tabel, diagram, serta pustaka yang relevan. Jika laporan kemajuan merupakan laporan pelaksanaan tahun terakhir, pada bagian ini dapat dituliskan rencana penyelesaian target yang belum tercapai.

Kegiatan yang direncanakan untuk penelitian pada tahun ke-2 (tahun terakhir 2022) adalah :

Membandingkan **temuan elemen utama intervensi untuk reduksi risiko Covid-19 di Indonesia** (hasil penelitian tahun pertama 2021) dengan dua negara lain di Asia yaitu Taiwan dan Thailand.



Untuk terlaksananya penelitian tahun ke-dua (tahun terakhir) tersebut, peneliti akan menggandeng peneliti bidang Keamanan Pangan dari Providence University, Taichung Taiwan serta peneliti bidang Bioteknologi Pangan dari Assumption University Bangkok Thailand.

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1. Gavilan D, Balderas-Cejudo A, Fernández-Lores S, Martinez-Navarro G. 2021. Innovation in online food delivery: Learnings from COVID-19. Int J Gastron Food Sci. 24.
2. Lau T-C, Ng DC-Y. 2019. Online Food Delivery Services : Making Food Delivery the New Normal. J Mark Adv Pract. 1:17.
3. Suhartanto D, Dean D, Leo G. 2019. Millennial Experience With Online Food Home Delivery. Interdiscip Journalof Information, Knowledge, Manag. 14:277–279.
4. Desai AN, Aronoff D. 2020. Food Safety and Covid-19. JAMA. 323:1982.
5. FAO/WHO. 2020. COVID-19, and Food Safety. Guidance for Food Businesses. Interim Guidance. Geneva.
6. USFDA. 2020. Best Practices for Retail Food Stores, Restaurants, and Food Pick-Up/Delivery Services During the COVID-19 Pandemic [Internet]. [cited 2021 Jul 23]. Available from: https://www.fda.gov/media/136811/

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Covid-19 Risk Prevention among Drivers Online Food Delivery (OFD) in Semarang, Indonesia

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Abstract

(1) **Objectives:** The purpose of this study was to observe the practice of preventing the risk of Covid-19 among drivers of online food delivery services in Semarang, Indonesia. Thus, the objective of this study is to observe the Covid-19 risk prevention practices among drivers of online food delivery services in Semarang, Indonesia.

(2) **Materials and Methods:** This research was conducted using Forum Group Discussion (FGD) and Delphi method. Eight active drivers of Online Food Delivery (OFD) in Semarang, Indonesia participated in this activity. The analysis of practice of preventing the risk of Covid-19 among drivers of online food delivery services was conducted based on the perspective of the experts using qualitative Delphi method with eight experts on food safety or public health and epidemiology.

(3) **Results:** On the survival & transmission of SARS-CoV-2, matched with expert opinion about the ability & factors that influence the survival of SARS-CoV-2 has a score of 2 (medium), then on the perception that COVID-19 can be transmitted through packaging, matched with expert opinion the risk of SARS-CoV-2 contamination in the type, packaging and handling method of the product also has a score of 2 (medium), and preventive measures to minimize COVID-19 on food packaging when matched with expert opinions on Good Practices that need to be implemented by food delivery services. is 2 (medium).

(4) **Conclusions:**

Keywords: Covid-19, food_safety, OFD, drivers

Introduction

During Covid-19 pandemic the way consumer order and consume food has been altered. The mobility limitation during pandemic has increased the willingness of consumers to use online food delivery (OFD) services. The main advantage of OFD services is to simplify the ordering process for both consumers and restaurants during social distancing (Gavilan et al. 2021). Moreover, OFD services provide consumers easy and effective access to food from a wide range of restaurants at different times and various locations (Lau & Ng 2019).

The Statista Food Delivery Report (2018) indicates that the Indonesian market for online home delivery food service was $US968,000,000 and the market was growing rapidly, at approximately 13% per annum. The Indonesian online food delivery market is dominated by local restaurants using online delivery services such as GoFood and Grab-Food, as well as multinational restaurants such as Pizza Hut and McDonalds that also have their own in-house-delivery services (Suhartanto et al. 2019).

SARS-CoV-2 is mainly transmitted from person to person through respiratory droplets that enter the mouth, nose, or eyes by contaminated hands. At present, there is no evidence that COVID-19 is a food borne disease (Desai & Aronoff 2020). To date, there have been no studies reporting that COVID-19 is spread through food products. Furthermore, there is no evidence to suggest that viruses that infect the respiratory tract can be transmitted through food or food packaging (FAO/WHO 2020).

The contamination SARS-CoV-2 in food becomes a big issue for management. Since a contaminated hand can cause pathogen carrying into the mouth or nose cavity, it is necessary to have good hand sanitation during COVID-19 outbreak. Food delivery procedures are required to comply with the health protocols in force during the COVID-19 pandemic. SARS-CoV-2 can be spread by infected carriers through easy-to-touch surfaces such as car/motorcycle steering wheels, doorknobs, and mobile phones. Moreovers, delivery workers may interact with the customer during the personal delivery of products and during the delivery process there is possibility that the food packaging may be damaged. Therefore, the implementation of health protocols and good distribution practices are very important during food delivery process. In 2020, the USFDA issued best practices for retail food stores, restaurants, and food pick-up/delivery services during the COVID-19 pandemic. They recommend drivers of delivery services to wash their hands, use hand sanitizer, wear masks, and carry out body temperature checks first (USFDA 2020).

Given the increasing importance of the food delivery sector in Indonesia during the pandemic and the potential risks to food safety, particularly those related to the transmission of Covid-19, it is important to evaluate the practices carried out by the real actors of OFD services, namely drivers. Thus, the purpose of this study was to observe the practice of preventing the risk of Covid-19 among drivers of online food delivery services in Semarang, Indonesia. Thus, the objective of this study is to observe the Covid-19 risk prevention practices among drivers of online food delivery services in Semarang, Indonesia.

Materials and Methods

The study was conducted in 2 parts. The first qualitative descriptive study was conducted using Forum Group Discussion (FGD). Snowball sampling technique was used to select the participants from drivers of Online Food Delivery in Semarang, Indonesia. Eight active drivers above 18 years old and have been worked for more than 1 year as driver of online food delivery followed this discussion. The discussion was carried out using video conferencing via google meet. A moderator lead the discussion for about 3 hours. Data was then analysed to identify the relationship between knowledge, attitude, and practice among drivers toward Covid-19 risk prevention. FGD method was continued using qualitative DELPHI method. The Delphi method was conducted to seek the most reliable consencus opinion from the experts on either food safety or public health and epidemiology. With regard to the recruitment process, we decided to invite eight experts with the minimum requirement on academic qualification of Master degree. The eight experts were consist of seven academians from university and one expertise from food industry. Among those seven academicians, six from Soegijapranata Catholic University and the other from Diponegoro University. The food industry expertise is from PT. Heinz ABC Indonesia. FGD and DELPHI method were carried out using video conference *google meet* and *zoom*. The data from FGD and Delphi method were analyzed using qualitative approach.

Results

Knowledge, Perception and Practices of the Drivers

Knowledge, perception and practices on Covid-19 risk prevention among the online food delivery drivers explored in Focused Group Discussion (FGD) are grouped according to three levels of inquiry. The first level is on general food safety issue; while second level is on supporting local environment. Ultimately the third level addresses the most important set of knowledge, perception and practices associated with Covid-19 and food safety. Responses of the drivers on general food safety issues are listed in Table 1.

Table 1. Results of FGD on General Food Safety Issues

Question Set	KNOWLEDGE	PERCEPTION	PRACTICES
1	***What do you know about food safety?***	***Do you think that contamination in food***	***What are the actions that can prevent***

		can threaten the safety of the food?	***contamination of the food you deliver?***
	Food safety is a necessary step to prevent food from contamination (biological, chemical) food safety does not only come from food delivery services but also from producers & buyers. Food safety is maintained starting from the ingredients before they are processed until they are ready for consumption. Several things must be taken care of to ensure food safety during the distribution process: • Food is wrapped using string/tightly tied to keep it safe and sterile • Maintain the temperature of the food so that the food is not damaged during the food distribution process • Hygiene/sanitation on the part of the restaurant/producer and health of the producer.	Contamination of food can threaten the safety of the food, especially raw food and vegetables that are prone to contamination. It migh cause Covid-19 transmission as well as other health problems and poisoning, e.g. the presence of antibiotics. Examples of diseases that can be caused include: • Stomach ache (real example: a restaurant makes ice cubes from raw water which causes consumers to have diarrhea) • Kidney damage • Cancer Contamination in food will also affect the quality of food, especially on taste and texture (e.g. food additives, such as sweeteners, flavouring agents, and preservatives). Food contamination is not only detrimental to consumers, but also to businesses and food delivery services. So that the producers and food delivery services when working must be in a healthy condition, apply hygiene and ensure the safety of the food.	• Bring a special bag/shopping bag/personal plastic bag to deliver food (so that the food is safe from dust and dirt, keeps food from deforming when traveling). The use of this bag/plastic is also very helpful if the food delivery service accepts orders from a restaurant located in the Mall, and the restaurant usually does not provide plastic to carry the food. • Must wear a mask • Washing hands and using hand sanitizer before/after entering the restaurant and touching the food packaging from the manufacturer so that the food packaging is not dirty • Suggest manufacturers to tie/seal plastic food packaging using rope (to keep food packaging tightly closed).
2	***What is your responsibility so that the food you deliver reaches the consumers?***	***Please answer with "AGREE" or "DISAGREE"; can the methods below be used to ensure the safety of the food you bring?*** ***(1). to prevent food packaging damage during delivery;*** ***(2) to deliver food in closed packaging;*** ***(3) to maintain an appropriate delivery conditions (hot food***	***What procedures do you follow to ensure that food remains safe and packaging is not damaged during transit?***

		stays hot, and cold food stays cold) with the characteristics of the product.	
	The food delivery service has the responsibility to: • Ensure completeness & conformity of customer orders and locations • Maintain & ensure food packaging is not damaged, safe and closed (keep as before from the restaurant) so that there is a need for a personal delivery bag from a food delivery service, the function of a delivery bag/personal plastic bag can also double as plastic from the manufacturer if the plastic from the manufacturer is too small/ thin / prone to damage when traveling • Prevent food, especially gravy, from spilling food, let alone being contaminated by dust and dirt from outside • Keep food packaging clean & hygienic by closing the shipping bag tightly	All respondents answered agree, the three ways are the complete responsibility of delivery services in sending orders to consumers. By doing these methods: • Automatically food will be distributed properly to the hands of consumers • Good service will provide trust and a good impression for delivery services for customer satisfaction, for example: delivering hot food remains hot, and cold food remains cold (examples of experience in food delivery services: delivering cold iced tea and hot tea, they must be separated the laying. This needs to be done so that the iced tea remains cold and the tea remains hot). Whole/undamaged food packaging, minimizing contamination.	• Advise restaurants to provide plastic/sealed packaging that is safe and suitable for food delivery services • Have a personal delivery bag to deliver customer orders and position the bag correctly so that food and delivery services are equally safe when driving • If the customer order is deemed sufficient and the delivery service does not have a personal delivery bag (only armed with an ordinary plastic bag), the delivery service must separate the food and drinks into several plastics so that they are not mixed and not damaged • Ensure that food packaging is tightly closed so that it is safe during travel • Drive carefully (no more than 50 km/hour to keep food intact and undamaged)
3	***What is the function and what are the criteria for a good and safe distribution container (storage bag) for carrying food while on the go?***	***Please answer with "AGREE" or "DISAGREE"*** ***By using the bag you have and closing it tightly, you can maintain food safety from the food you carry. What type of bag do you have?***	***Do you always make sure that your bag is tightly closed?*** ***Do you "ALWAYS/ RARELY/NEVER" use bags to cover the packaging from the seller? Why rarely/ never?***

	Functions of a good distribution bag: • Make it easier for delivery services to bring food (especially if there are enough consumer orders) so that food is safely carried & delivery services remain safe while driving • Prevent contamination from outside (dust and dirt) • Keep food temperature stable The criteria of a good distribution bag: • Can withstand the temperature of food (hot food stays hot, cold food stays cold) • Airtight • Heat and water resistant (does not seep when it rains) • Ideal size (not too big, not too small) • Easy to clean and always clean when in use • Comfortable to use • Easy to carry	• Can maintain food safety from external contamination (dust and dirt) and cross-contamination between foods • Food safety is guaranteed, because the restaurant usually has plastic, so if you put it in a tightly closed bag, the food safety will be more secure • The shipping bag can withstand temperature if it is tightly closed, and it has a zipper so it should be when it is tightly closed • The delivery bag is also equipped with a divider inside so that it can maintain the safety of the food inside. • If the bag is tightly closed, sometimes the hoot food can damage the bag.	The types of delivery bags used, include • ordinary plastic bag • multipurpose cloth bag • backpack • airtight bag similar to GoFood/GrabFood • official delivery bags from GoFood / GrabFood Always close the delivery bags tightly because: • the food will not be contaminated • The inside of the bag is kept clean both when in use and not in use • It does have a zipper closure
4	***What should be a good and correct method of cleaning the delivery bag?***	***Please answer with "AGREE" or "DISAGREE"*** ***Cleaning method by: spraying disinfectant and wiping the inside part of the bag can keep the bag clean.***	***What method do you use in cleaning your delivery bag?***
	• Ironed • Wiped using wet and dry tissue • Sprayed with disinfectant • Brushed and	Agree, because: • Spraying with disinfectant can kill 99% of bacteria on the inside of the bag • Alcohol based	• The outside of the bag is sprayed with disinfectant and wiped with a cloth • Washed (brushed and soaped) using

	soaped • Washed with warm water	disinfectant, safer for food Disagree, because: • Disinfectants do function to kill germs, but they cannot optimally clean the bag from spilled food/drinks so soap and water are still needed for washing. • Not sure about using disinfectant because it is chemical that you don't know whether it affects your health or not.	water/ warm water then dried in the sun, if needed ironed to make it more hygienic • Washed (brushed and soaped using Food Grade soap) • Using single-use plastic

Responses of the drivers on factors which might affect the safety of food during delivery are listed in Table 2.

Table 2. Results of FGD on Factors Affecting the Safety of Food during Delivery

Question Set	KNOWLEDGE	PERCEPTION	PRACTICES
1	***Can the duration (time) of delivery affect food safety during the distribution?***	***Please answer with "AGREE" or "DISAGREE"*** ***If the finished food is delivered more than the proper time (more than 2 hours) it will change the taste and or make the food contaminated. (Both contamination from the surrounding environment, for example: hot food placed in styrofoam/ plastic for too long can be harmful to health)***	***According to your experience, how long does it take (on average) to deliver each GoFood/ GrabFood order to the consumer?*** ***What is the longest time you have ever experienced, and why did this happen?***
	Long duration/delivery time that exceeds the required time (eg 1-2 hours) can affect food safety during delivery: • Hot food if placed in styrofoam	Agree, because the delivery of the food takes too long/too long not only changes the texture, taste (e.g. pizza that is too long will be hard, ice cream can melt) but can also change the food to be toxic/dangerous to eat if it is placed in the	The average delivery time is 10-25 minutes The longest time is 35-120 minutes because: • Queuing at the restaurant • The location of the consumers is quite far

	container for a long time will be dangerous to consume • If the delivery time is too long, the food may change in terms of shape/physical, texture, taste when it arrives at the consumer's location (e.g. ice may melt, food becomes cold) • But so far, the company has time and distance limits, so that food will be delivered within a range of 20-30 minutes.	packaging box for too long (e.g. plastic can stick to food because it is too hot).	
2	***How can temperature and weather (e.g. extreme heat or sudden rain) affect food safety during delivery?***	***What do you think will happen if the food you bring is exposed to direct sunlight / wet due to rain water?***	***What do you usually do to maintain the safety of the food you bring, if the outside temperature is too hot or the weather suddenly turns to rain?***
	• Weather had quite an effect on food safety, because if only single-use plastic used where food was cold when the weather was hot, it could melt and change shape. • When it rains, they have to stop and wearing raincoats and simply extend the delivery time. Because if the shipping bag gets rained on, it will affect the food.	If the weather is quite extreme (excessive heat/rain) it can cause: • Consumer disappointment where there will be changes in the shape, texture, taste of the food and drinks brought (eg ice cream can melt, iced tea is not cold anymore because the ice cubes are melting) so that a food delivery service usually deals with this situation by "asking for extra more ice cubes from the producer to keep drinks cold when they arrive at the	If the weather is too hot: • Keep getting hit • Do not close the bag too tightly to allow air circulation in the shipping bag, and do not change the taste of the food if the bag is too stuffy • If the weather suddenly rains: • Food is put in the motorbike seat along with the delivery bag • Check the condition of the order in advance, and use a raincoat that can cover the shipping bag so it doesn't rain • • Double cover the

	• The weather might had no effect on food safety because they felt that they had used sufficient delivery bags, so they were safe in hot/rainy weather.	consumer's location. • Food hazard, because hot food in Styrofoam that is too long exposed to the sun will cause an unpleasant aroma, but if it rains it will risk damaging the packaging.	packaging with another plastic

Responses of the drivers on the relationship between Covid-19 and food safety are listed in Table 3.

Table 3. Results of FGD on Covid-19 and Food Safety

Question Set	KNOWLEDGE	PERCEPTION	PRACTICES
1	***a. How/through what is the transmission of COVID-19?*** ***b. Can COVID-19 survive on objects around us?***	***Please answer with "AGREE" or "DISAGREE"*** ***COVID-19 can be transmitted to humans through food packaging.***	***What are the actions you take to minimize the presence of COVID-19 on the food packaging you bring?***
	• Transmission of COVID-19 can occur either through physical contact/direct touch (eg when in contact with packaging/products from producers to drivers & drivers to consumers), droplets, air/aerosols (eg poor ventilation systems in crowded places), inanimate objects (including food packaging). • The way to prevent transmission is by complying with health protocols such as: using hand sanitizer, masks, reducing	A total of 7 people agreed that COVID-19 could survive on food packaging if: • Food packaging is carried out by OTG Covid-19 • The packaging is not clean/sterile • COVID-19 is a physical contamination and can stick anywhere so it can survive on food packaging (the virus sticks anywhere) so that when food arrives at the consumer's location, they always spray the packaging using disinfectant As many as 1 person disagreed, because: Before consuming	Actions taken by food delivery services to minimize COVID-19 on food packaging are: • A total of 1 person performs the J3K protocol • As many as 4 people keep their distance • As many as 1 person sprayed disinfectant on food packaging • As many as 4 people carry special bags to deliver food • 2 people wearing gloves • A total of 8 people/in total wash their hands and use hand-sanitizer • • A total of 6 people are wearing masks

	physical contact, for example hanging food on the consumer's fence. • As many as 7 people think that the COVID-19 virus can survive on inanimate objects for hours and even days on inanimate objects (wooden doorknobs, iron, jackets/fabric). even up to 1 week and is influenced by weather conditions (if the weather is hot, the virus will disappear / die faster, but if the weather is cold the virus will live longer). COVID-19 is almost the same as the common cold in that it can be transmitted to other people, including inanimate objects themselves. • However, 1 person said that the COVID-19 virus cannot survive on inanimate objects, because the COVID-19 virus only survives on living things, if it is found in inanimate objects, the virus will not survive.	food, consumers must first spray/sterilize food packaging so that it cannot be infected with food.	
2	***What is the purpose of wearing a mask during this COVID-19 Pandemic?***	***Please answer with "AGREE" or "DISAGREE"*** ***The use of masks can minimize***	***1. What type of mask do you use?*** ***2. How many layers?*** ***3. Changed/washed how many times a day?***

		the transmission of COVID-19 to ourselves and others.	
	Protect ourselves from the transmission of the COVID-19 virus through the air/aerosol.	All respondents agreed that they agreed that the use of masks can minimize the transmission of COVID-19 to ourselves, others and protect from polluting fumes when driving.	The types of masks used by the Delivery Service are varied, i.e. duckbill type mask and a bandana; KF94 and KN95 types masks; medical masks and cloth masks. The layers of masks used by food delivery services are ranging from 1-ply mask (KN95 and KF94: 5 ply/sheet); 2 layers of masks, i.e. medical masks and cloth masks or duckbill masks and cloth bandanas. The frequency of changing & washing medical masks and cloths is ranging from two times per day to every two days.
3	***What is the purpose of your regular body temperature check?***	***Please answer with "AGREE" or "DISAGREE"*** ***With the appeal and regulations to check your body temperature regularly, you can ensure your health during your activities and minimize the transmission of COVID-19.***	***What is your routine in checking body temperature?***
	The purpose of checking body temperature is to monitor the physical condition of the driver so that: • Stay safe in delivering food to consumers • Determine whether the driver can still work/not • Determine whether the driver's	The purpose of checking body temperature is to monitor the driver's physical condition so that: • Stay safe in delivering food to consumers • Determine whether the driver can still work/not • Determine	A total of 8 respondents check their body temperature every day where every time they get an order at a certain restaurant or mall with a policy of checking the body temperature of the guest/driver first. A total of 1 respondent checks body temperature once every 7 days. Because it is a mandatory policy of the GoJek company to check

	physical condition is infected with the COVID-19 virus or not • Convincing consumers that we as drivers are really healthy.	whether the driver's physical condition is infected with the COVID-19 virus or not • Convincing consumers that we as drivers are really healthy	the driver's body temperature regularly. However, checking body temperature can also be done if we are not feeling well, we can check body temperature independently for the safety of ourselves and others.
4	***What is the function of a disinfectant?***	***All respondents agreed to agree with the call for temperature checks, because:*** • ***Checking body temperature can be an indicator for ourselves and others*** • ***Body temperature checks to ensure that we are safe and to reassure consumers that we are healthy while working*** • ***Checking body temperature to ensure our immune system*** • ***Checking body temperature is our obligation as drivers to maintain our own health*** • ***Checking body temperature can convince us that we are fit to work and move freely***	***What is your routine in disinfecting/cleaning your vehicle?***
	Disinfectants function to minimize the transmission of COVID-19 by cleaning viruses/bacteria/fungus attached to the surface of inanimate objects.	All respondents agreed that the use of disinfectants in distribution facilities such as vehicles, because it can minimize the transmission of COVID-19 on the	A total of 1 respondent cleans their vehicle 1x 2 days, 2 respondents cleans their vehicle 1x 3 days, and 5 respondents cleans their vehicle 1x 7 days. However, if the weather becomes more frequent, the respondents will clean their

		surface of objects around drivers because vehicles are inanimate objects and facilities that drivers use every day for work, sometimes when traveling/parking vehicles are very vulnerable. touched by other people so that the possibility of the COVID-19 virus sticking to the surface of objects (vehicles) is very large and the use of disinfectants is an alternative to cleaning the surface of the vehicle from the presence of the COVID-19 virus attached.	vehicles more often. A total of 4 respondents disinfect their vehicles every day, before and after receiving customer orders or after they come home from work. Then the others are: 1 respondent disinfects their vehicle 1x 2 days, 1 respondent disinfects 1x 3 days, and 1 other respondent disinfects 7 days 1x. Respondents usually disinfect certain frequently touched areas such as: handlebars, handles, seats, and helmets.
5	***Hands are one of the limbs that often make physical contact during the food distribution process, what methods do you think are effective for cleaning hands? State the reason!***	***Which do you think is more effective in cleaning hands:*** ***a. Wash your hands with soap for 20 seconds with running water*** ***b. Use of hand-sanitizer with at least 60% alcohol content***	***During the food distribution process: how often do you clean your hands with soap and use hand-sanitizer?***
	Hand cleaning method by washing hands with soap and running water if the manufacturer provides a place for washing hands & using a hand-sanitizer if the producer/driver does not find a place to wash hands.	All respondents agreed that washing hands with soap for 20 seconds with running water is considered more effective because: • Clean hands more hygienically, evenly and thoroughly to the palms of the hands from viruses, bacteria and germs • Use of hand-sanitizer only in certain circumstances	Hand washing is an activity that must be done every time you get an order, before entering a restaurant, if there is no hand-washing sink, you can use a hand-sanitizer.

		(eg no handwashing sink) • Hand-sanitizer with 60% alcohol content is not enough to kill germs/viruses on hands, so a hand-sanitizer with 70% content is needed to kill germs/viruses on hands • More cost-effective	
6	***What are the appeals that you know to minimize the transmission of COVID-19 when you are at the producer's location?***	***Please answer with "AGREE" or "DISAGREE"*** ***Can the following ways minimize the transmission of COVID-19 at the producer's location?*** ***• Wash hands/use hand-sanitizer before entering the restaurant.*** ***• Maintain a distance of 6 feet (1.5 meters) from each other when in a restaurant*** ***• Make non-cash payments via GoPay/OVO***	***Out of all the appeals, which ones do you often practice when you are at the producer's location?***
	• Use of masks • Temperature check • Hand washing/use of hand-sanitizer • Reducing physical contact (maintaining distance & making non-cash payments)	All respondents agreed, because these things are rules and obligations that must be carried out by drivers to reduce physical contact so that they can suppress and minimize the transmission of COVID-19.	At the manufacturer's location, usually: • A total of 3 people made non-cash payments • A total of 8 people/in total keep their distance from each other, wash their hands/use hand-sanitizer, and wear masks • A total of 5 people check their body temperature

7	***What are the appeals that you know to minimize the transmission of COVID-19 when you arrive at the consumer's location?***	***Please answer with "AGREE" or "DISAGREE"*** ***Can the following ways minimize the transmission of COVID-19 at consumer locations?*** ***• Hanging food on the fence*** ***• Encourage consumers to make non-cash payments via GoPay/OVO***	***Which one do you experience more often:*** ***- Make physical contact (consumers make payments in cash) "ALWAYS/Rarely/Never"*** ***- Reducing physical contact (consumers make non-cash payments using GoPay/OVO) "ALWAYS/RAW/NEVER"*** ***Why does this often happen?***
	Advice on the use of masks; use of hand-sanitizer; communication with consumers to maintain distance & reduce physical contact such as non-cash payments; hang/leave food on the fence/terrace of the consumer's house (if the consumer pays in cash, the money can be placed on the table, then the driver picks up & sprays the money with disinfectant).	All respondents agree, because in these ways: • Safer because there is no direct physical contact (minimizing COVID-19 transmission) • Faster & efficient • Consumers do not make fictitious orders/fraud	A total of 7 people more often encounter non-cash payments because during this pandemic consumers are worried about physical contact, and as many as 1 respondent still often encounters cash payments.
8	***What is the function of the gloves you use in your daily work?***	***Please answer with "AGREE" or "DISAGREE"*** ***The use of gloves during the food distribution process can minimize the transmission of COVID-19.***	***What is your routine in using these gloves?*** ***How often is it changed/washed?***
	Gloves function to protect hands from dirt, dust; reducing direct physical contact (preventing transmission of COVID-19); coat hands from the hot sun; safety in driving.	A total of 7 respondents agreed, because the use of gloves can: • Avoid direct contact and minimize exposure to the COVID-19 virus • Gloves can be sprayed with	• A total of 4 respondents wash the gloves every day – the next day they use other gloves (spare) • A total of 4 respondents often do cleaning by washing 2-3 times in 1 week. Gloves were also cleaned if the respondents

		disinfectant • Protects the skin from the sun and heat • Gloves do protect, but you still have to wash your hands so that hand hygiene is maintained A total of 1 respondent did not agree, because: • Gloves are also inanimate objects, so that viruses can be infected	felt they were dirty, they were washed immediately. Respondents should have spare gloves, not just a pair. So if one is washed, the other can be worn.

Discussion

Expert Opinion

Expert opinions gathered in the Delphi session are summarized below.

Sars-Cov2 has the ability to survive in food, including food packaging (plastic, cardboard, stainless steel) but for a certain period of time. If the producer, the food delivery person does not carry out the procedure and is in a sick condition, there may be transmission to the food or the surface of the food packaging. However, until now it has not been confirmed that this can pose a big risk because the transmission of Sars-Cov2 can be influenced by several things, such as: (1) The amount of virus that enters the food/sticks to the surface of the packaging, (2) temperature, (3) relative humidity, (4) pH, and (5) application of health protocols by producers, food delivery parties and consumers.

The chances of SARS-CoV-2 in contaminating food tend to be low (depending on the amount of virus, the procedures implemented by the three stakeholders, handling of food before consumption, and contact with the delivery person). All stakeholders (producers, food delivery parties & consumers) have their respective roles in reducing/increasing the possibility of contamination that will arise. Chances of contamination to food can come from (1). mouth and droplets from food handlers (manufacturers), (2). hand food handler (manufacturer), (3). food packaging/boxes, (4) food production sites, (5) application of consumer, producer, and delivery procedures, (6) consumer actions before consuming food, and (7) contamination opportunities can come from the three stakeholders (producers, food delivery parties). & consumers).

Some efforts (good practices) and health protocols must always be emphasized on food delivery parties, companies such as GoJek & Grab must often provide education-evaluation to food delivery parties such as (1). personal health (self-hygiene), (2) diligently washing hands/using hand

sanitizers, and (3) wearing masks. Food delivery people are not allowed to take off their masks wherever they are when they are working. In this case, removing the mask is the same as opening the opportunity for transmission of the virus.

Disinfection should be carried out as often as possible, especially after work it must be cleaned immediately and the delivery person must not put personal items in the delivery bag to prevent cross-contamination of food. The use of gloves needs to be seen from certain conditions. If direct contact with food must be changed at least every 2 hours if and cannot handle anything other than food for 2 hours and must be accompanied by hand washing steps.

The use of masks is the first step and the most important step in minimizing the transmission of SARS-CoV-2, but it must also be followed by the correct way of using a mask, namely wearing a mask tightly covering the nose and mouth, double mask (3 ply medical mask (inside) and cloth)), 4 ply or 5 ply medical masks are enough, 1 does not need to be doubled, the inner surface of the mask is well maintained when not in use (eg put in a mask wallet/inside closed), mask replacement is carried out at least once a day or every 4 hours if activities outside the room, and the application of diligent hand washing is still carried out.

The correct method of hand hygiene is (1). not open the water faucet by hand, but with a sensor/footrest, (2). rinse hands with running water, rub hands with soap according to WHO recommendations, and (3) wash hands with soap for 20 seconds.
Using the correct hand drying method, namely by drying hands on a hand-dryer (single use towel) then followed by the use of a hand-zanitizer. The solution for alcohol sensitive hands is (1). frequent hand washing, (2). mixing hand sanitizer with aloe vera, (3). the use of chlorhexidine-based hand sanitizers, (4). Use of lotion after using hand sanitizer (preventive action), (5). the use of special types of laundry soap for sensitive skin, and (6). use of the hand washing facilities in the restaurant

According to experts, SARS-CoV-2 has the opportunity to contaminate food if the producer and delivery service are infected people and then do not carry out health protocols properly and there are droplets that then appear and stick. Certain types of packaging can make the SARS-CoV-2 virus last a long time on the packaging, for example: cardboard, styrofoam, plastic (4 days at most), and paper (3 hours). The type of packaging does not really affect the spread of the SARS-CoV-2 virus, because in the end the packaging will be discarded (both primary/secondary).

Compatibility between Results of FGD and Delphi Session

Compatibility between the responses of the respondents collected from the FGD and the opinions of the experts extracted from the Delphi session is summarized below.

On the survival & transmission of SARS-CoV-2, matched with expert opinion about the ability & factors that influence the survival of SARS-CoV-2 has a score of 2 (medium), then on the perception that COVID-19 can be transmitted through packaging, matched with expert opinion the

risk of SARS-CoV-2 contamination in the type, packaging and handling method of the product also has a score of 2 (medium), and preventive measures to minimize COVID-19 on food packaging when matched with expert opinions on Good Practices that need to be implemented by food delivery services. is 2 (medium).

On the use of face masks, respondents' knowledge about the purpose of using masks was matched with expert opinions on the correct use & replacement of masks, which scored 3 (high), then the perception that the use of masks could minimize COVID-19 was matched with expert opinions on Good Practices. what food delivery services need to implement has a score of 1 (low), and actions in the form of layers, types & replacement of masks when matched with expert opinion on the correct use & replacement of masks are 3 (high).

On the temperature check, knowledge about the purpose of checking body temperature, the perception that checking body temperature can ensure health & minimize COVID-19, actions in the form of routine body temperature checking when matched with expert opinions on Good Practices that need to be implemented by food delivery services have their respective score of 2 (medium), 2 (medium), and 3 (high).

On the disinfectant use, knowledge of the function of the disinfectant, the perception that routine vehicle disinfection can minimize COVID-19, actions in the form of routine disinfection & vehicle cleaning when matched with expert opinions on Good Practices that need to be implemented by food delivery services each have a score of 4 (very high), 3 (high), and 3 (high).

On the hand washing, knowledge of the correct hand cleaning method, perceptions of the effectiveness of hand washing & the use of hand-sanitizer, when compared with expert opinions on good & correct hand cleaning methods each scored 2 (medium). Then the actions in the form of washing hands and using hand-sanitizer when matched with expert opinions on Good Practices that need to be implemented by food delivery services each have a score of 3 (high).

On the safety warning at the seller premise, the perception of several appeals such as: not making physical contact (maintaining distance, non-cash payments) and washing hands before and after entering a restaurant can minimize COVID-19, if it is matched with expert opinion about the possibility of contamination SARS-CoV-2 in food scored 3 (high) and 2 (moderate), respectively. Then the respondent's actions while at the producer's location when matched with expert opinions on Good Practices that need to be implemented by food delivery services have a score of 3 (high).

On the warnings at the consumer's location knowledge of the appeal at the consumer's location, the perception of several appeals such as: not making physical contact (maintaining distance, non-cash payments) can minimize COVID-19, if it is matched with expert opinion about the possibility of SARS-CoV contamination -2 on food scored 3 (high) and 1 (low) respectively. Then the respondent's actions while at the consumer's location (payment in cash/non-cash) when matched with expert opinions on Good Practices that need to be implemented by food delivery services have a score of 2 (medium).

On the use of hand gloves, knowledge of the use of gloves, the perception that the use of gloves can minimize COVID-19, when matched with expert opinions on Good Practices that need to be implemented by food delivery services, scored 2 (medium) and 3 (moderate) respectively. tall). Then the respondent's actions in using gloves when matched with expert opinions about the use of gloves have a score of 3 (high).

Conclusions

Author Contributions:

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References

[1] Desai AN, Aronoff D. 2020. Food Safety and Covid-19. JAMA. 323:1982.

[2] FAO/WHO. 2020. COVID-19, and Food Safety. Guidance for Food Businesses. Interim Guidance. Geneva.

[3] Gavilan D, Balderas-Cejudo A, Fernández-Lores S, Martinez-Navarro G. 2021. Innovation in online food delivery: Learnings from COVID-19. Int J Gastron Food Sci. 24.

[4] Lau T-C, Ng DC-Y. 2019. Online Food Delivery Services : Making Food Delivery the New Normal. J Mark Adv Pract. 1:17.

[5] Suhartanto D, Dean D, Leo G. 2019. Millennial Experience With Online Food Home Delivery. Interdiscip Journalof Information, Knowledge, Manag. 14:277–279.

[6] USFDA. 2020. Best Practices for Retail Food Stores, Restaurants, and Food Pick-Up/Delivery Services During the COVID-19 Pandemic [Internet]. [cited 2021 Jul 23]. Available from: https://www.fda.gov/media/136811/

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