

BAB V

PENUTUP

Pada bab ini berisikan tentang kesimpulan yang menjelaskan hasil penelitian yang telah diuji selama prose penelitian dengan ringkas. Kemudian implikasi manajerial turut diberikan sebagai saran kepada pelaku bisnis untuk acuan dalam melakukan praktik bisnis. Selain itu, keterbatasan pada penelitian ini diuraikan dan saran diberikan agar menjadi rekomendasi di penelitian selanjutnya.

5.1 Kesimpulan

Berdasarkan penelitian yang telah dilakukan, diperoleh hasil dari pengolahan data sebagai berikut:

1. Kehadiran sosial platform *live streaming* memengaruhi kepercayaan konsumen secara signifikan. H1a ditolak. Hal ini menunjukkan bahwa platform TikTok tidak semata-mata percaya karena mereka dapat berinteraksi melalui platform yang tersedia. Suasana dan fitur sosial seperti adanya komentar *real time* tidak menjamin penonton untuk yakin terhadap konten atau produk yang ditawarkan.
2. Kehadiran sosial platform *live streaming* memengaruhi *flow state* secara signifikan. H1b diterima. Hal ini menunjukkan bahwa platform *live streaming* TikTok dapat menyediakan media untuk menciptakan suasana interaksi sosial yang intens. Dengan komentar *real time* dan interaksi yang dalam dengan *streamer*, membuat pengguna TikTok terlibat lebih fokus dan menikmati alur konten *live streaming* yang dibagikan tanpa adanya gangguan.
3. Kehadiran sosial penonton memengaruhi kepercayaan konsumen secara signifikan. H2a diterima. Hal ini menunjukkan bahwa penonton TikTok memiliki peran penting untuk membentuk kepercayaan konsumen. Penonton TikTok aktif memberikan komentar seperti *review* dan menanyakan produk sebagai bentuk bukti sosial. Penonton TikTok juga berperan untuk meyakinkan penonton lainnya untuk percaya

karena mereka juga menjadi bagian dari komunitas yang membentuk opini bersama dan relevan.

4. Kehadiran sosial penonton tidak memengaruhi *flow state* secara signifikan. H2b ditolak. Hal ini menunjukkan bahwa penonton TikTok cenderung mengalami kondisi *flow* ketika mereka terhubung langsung dengan konten yang dibagikan, bukan adanya keberadaan penonton lainnya. Hal ini juga menjelaskan bahwa interaksi yang dilakukan antar penonton TikTok tidak terlalu intens.
5. Kehadiran sosial *streamer* memengaruhi kepercayaan konsumen secara signifikan. H3a diterima. Hal ini menunjukkan bahwa *streamer* TikTok berhasil sebagai representasi dari produk yang dijual, tidak hanya menyampaikan informasi produk. *Streamer* TikTok mampu membangun kepercayaan konsumen lewat gaya komunikasi yang khas dan pendekatan yang transparan.
6. Kehadiran sosial *streamer* tidak memengaruhi *flow state* secara signifikan. H3b ditolak. Hal ini menunjukkan bahwa *streamer* TikTok tidak cukup kuat untuk menciptakan keterlibatan tinggi dari konten yang dibagikan. Ini juga berarti bahwa orientasi penonton TikTok lebih cenderung mengarah persepsi dan keterlibatan kognitif terhadap konten yang dibagikan.
7. *Telepresence* memengaruhi kepercayaan konsumen secara signifikan. H4a diterima. Hal ini menjelaskan bahwa kualitas video *live streaming* TikTok berhasil membangun kepercayaan konsumen karena mampu menciptakan pengalaman belanja seolah-olah mereka berbelanja di toko fisik. Dengan *live streaming* TikTok yang jelas, konsumen dapat melihat fungsi dan keaslian, serta merasakan transparansi penyampaian informasi yang jelas.
8. *Telepresence* memengaruhi *flow state* secara signifikan. H4b diterima. Hal ini menunjukkan bahwa kualitas *live streaming* TikTok juga menghasilkan pengalaman imersif dan terasa nyata seolah berada di toko fisik. Kombinasi audiovisual dan interaksi yang mendalam

membuat penonton TikTok terhubung dalam jangka waktu yang lama dalam *live streaming* TikTok.

9. Kepercayaan konsumen memengaruhi *flow state* secara signifikan. H5 diterima. Hal ini menunjukkan bahwa kepercayaan menghilangkan keraguan yang dimiliki penonton untuk memasuki kondisi *flow* dengan mudah, sehingga penonton TikTok dapat menikmati setiap interaksi dengan rasa keyakinan yang tinggi tanpa adanya rasa skeptis atau evaluasi berlebihan.
10. Kepercayaan konsumen tidak memengaruhi perilaku pembelian impulsif. H6 ditolak. Hal ini menunjukkan bahwa konsumen TikTok yang dengan tingkat kepercayaannya yang tinggi justru membuat konsumen berhati-hati dan kritis dalam mengambil keputusan pembelian.
11. *Flow state* memengaruhi perilaku pembelian impulsif secara signifikan. H7 diterima. Hal ini menunjukkan bahwa konsumen TikTok melakukan pembelian impulsif didorong oleh kondisi emosional. Konsumen TikTok terlibat dengan pengalaman *live streaming* dengan fokus yang penuh, sehingga mereka tidak sadar dan kurang melakukan evaluasi secara rasional, kemudian melakukan pembelian tanpa rencana.
12. Kepercayaan konsumen tidak memediasi pengaruh kehadiran sosial platform *live streaming* terhadap *flow state*. H8 ditolak. Hal ini menunjukkan bahwa platform *live streaming* TikTok dapat mendorong keterlibatan mendalam atau *flow* tanpa mengandalkan kepercayaan terlebih dahulu. Suasana yang ramai, interaktif dan dinamis dapat langsung menarik perhatian penonton TikTok, terlepas kepercayaan mereka terhadap konten yang dibagikan.
13. Kepercayaan konsumen memediasi pengaruh kehadiran sosial penonton terhadap *flow state*. H9 diterima. Hal ini menunjukkan bahwa interaksi penonton TikTok membentuk kepercayaan yang kemudian mendorong *flow state*. Penonton TikTok menanyakan produk, menyebutkan komentar tentang produk dan memberikan ulasan,

kemudian hal ini menjadi informasi bagi penonton lainnya dan tambahah persepsi kepercayaan konsumen. Informasi yang diterima dari penonton lain baik komentar, pertanyaan, dan ulasan menjadi fondasi rasa aman bagi penonton untuk mengalami *flow state* dalam menikmati konten *live streaming* TikTok.

14. Kepercayaan konsumen memediasi pengaruh kehadiran sosial *streamer* terhadap *flow state*. H10 diterima. Hal ini menunjukkan bahwa *streamer* TikTok yang transparan dan menunjukkan kredibilitasnya dalam membagikan informasi prod mampu mendorong *flow state* konsumen secara tidak langsung melalui kepercayaan yang telah dibentuk. Lewat komunikasinya yang khas, *streamer* TikTok mampu meyakinkan penonton untuk tidak terganggu akan keraguannya, sehingga mereka dapat terlibat dalam konten *live streaming* dalam jangka waktu yang panjang.
15. Kepercayaan konsumen memediasi pengaruh *telepresence* terhadap *flow state*. H11 diterima. Hal ini menunjukkan bahwa kualitas *live streaming commerce* yang dihasilkan oleh para pelaku bisnis di TikTok mampu pendorong kepercayaan dan secara tidak langsung mendorong *flow state*. Penonton TikTok merasakan mereka seolah-olah berada di toko fisik karena kualitas audiovisual yang imersif dan distraksi yang minim memungkinkan untuk menambah persepsi kepercayaan mereka terhadap pengalaman belanja online. Kepercayaan atas pengalaman belanja online seperti di toko fisik ini, menghilangkan keraguan dan mendorong fokus serta kenyamanan dalam menikmati *live streaming* TikTok.
16. *Flow state* memediasi pengaruh kepercayaan konsumen terhadap perilaku pembelian impulsif. H12 diterima. Hal ini menunjukkan bahwa kepercayaan menumbuhkan rasa aman untuk mendorong rasa emosional atau *flow state* untuk melakukan pembelian impulsif. Karena penonton menikmati tanpa adanya gangguan, hal ini mendorong emosi penonton yang diakibatkan keadaan yang larut dalam pengalaman

menikmati konten *live streaming* TikTok sehingga mereka tanpa sadar dapat terdorong melakukan pembelian impulsif.

5.2 Implikasi Manajerial

Berdasarkan hasil penelitian, berikut ini beberapa saran manajerial yang dapat diterapkan oleh pelaku bisnis yang menggunakan TikTok sebagai platform *live streaming commerce*:

1. Kehadiran sosial platform *live streaming* mempunyai pengaruh yang signifikan terhadap *flow state* yang dialami pengguna. Temuan ini menjelaskan bahwa TikTok sebagai platform *live streaming commerce* tidak hanya tempat untuk melakukan penjualan produk, tetapi dapat menjalankan fungsinya sebagai ruang virtual untuk terjadinya interaksi yang dinamis dan dalam antara *streamer* dan penonton. Perlu keterlibatan yang dibangun dalam *live streaming* TikTok untuk membangun komunikasi dengan satu sama lain. Hasilnya mempercepat *flow state* pengguna dan menciptakan pengalaman berbelanja dan komunikasi yang memuaskan serta loyalitas dalam jangka waktu yang panjang. Pelaku bisnis juga dapat memanfaatkan fitur interaktif di dalam TikTok untuk mendukung keterlibatan dalam ruang virtual seperti emoji, *real time chat* dan *face filter*.
2. Kehadiran sosial penonton selama sesi *live streaming* berlangsung memengaruhi kepercayaan konsumen secara signifikan. Hal ini menjelaskan bahwa keberadaan penonton lain berperan dalam memengaruhi kepercayaan konsumen berdasarkan apa yang mereka alami dan mereka lihat selama *live streaming*. Maka perlu ada dorongan dari pelaku bisnis yang menggunakan TikTok untuk membangun dan mengelola keterlibatan penonton selama *live streaming* berlangsung. Penonton yang sudah membangun kepercayaan terhadap sesi *live streaming* akan menjadi validasi bagi penonton lain untuk terus menikmati sesi *live streaming* dan mendorong pembelian. Pelaku bisnis dan *streamer* TikTok dapat memanfaatkan banyaknya penonton untuk

membangun kepercayaan dengan melibatkan mereka seperti menyebut ulasan produk yang pernah dialami penonton atau komentar produk dari penonton, atau menjawab pertanyaan seputar produk yang ditanyakan, sehingga membuat semua penonton yang hadir merasa menjadi satu bagian komunitas yang memperkuat kepercayaan satu sama lain.

3. Kehadiran sosial *streamer* memengaruhi signifikan terhadap kepercayaan konsumen menunjukkan bahwa *streamer* adalah peran penting untuk menciptakan pengalaman belanja yang aman dalam *live streaming*. Perlu diperhatikan bahwa *streamer* TikTok harus menguasai informasi mengenai produk, maka dapat dilakukan evaluasi dan pelatihan untuk membangun komunikasi yang baik seperti dari sisi bahasa tubuh dan penggunaan bahasa yang baik. Demonstrasi yang dilakukan secara langsung untuk menunjukkan kelebihan produk menjadi cara utama untuk menghilangkan keraguan konsumen. Informasi lain seperti harga, ketersediaan produk dan manfaat produk perlu disampaikan dengan gaya komunikasi yang meyakinkan konsumen.
4. *Telepresence* memengaruhi baik kepercayaan konsumen dan *flow state* secara signifikan. Hal ini menjelaskan bahwa TikTok menghasilkan kualitas *live streaming* yang baik. Perlu adanya pengoptimalan dan peningkatan *live streaming* TikTok dari segi kualitas yang membuat penonton merasa seolah hadir secara nyata dalam lingkungan virtual membangun pengalaman belanja yang imersif dan interaksi sosial yang baik. Persepsi konsumen tentang profesionalisme dan kredibilitas akan semakin kuat dan meningkatkan kepercayaan sebagai tanda bahwa mereka dapat menikmati pengalaman *live streaming commerce* TikTok dengan aman. Misalnya, pelaku bisnis TikTok dapat mendesain ruangan yang benar-benar seperti berbelanja fisik dari segi dekorasi yang didukung dengan kualitas suara yang jernih dan menggunakan kamera yang menampilkan resolusi tinggi sehingga mendukung demonstrasi produk secara online. Selain itu, pelaku bisnis yang memanfaatkan TikTok sebagai *live streaming commerce*, perlu

memperhatikan dalam membentuk ruangan virtual yang minim distraksi, menciptakan *live streaming* yang rapi agar fokus dan terlibat secara penuh, seperti menghilangkan spam komentar dan menjaga konektivitas agar tetap terhubung.

5. Kepercayaan konsumen memengaruhi *flow state* secara signifikan. Hal ini menjelaskan bahwa kepercayaan konsumen menjadi peran utama untuk mendorong keterlibatan dalam sesi *live streaming* TikTok. Pelaku bisnis perlu menempatkan situasi *live streaming* TikTok yang terbuka sehingga menghilangkan persepsi bahwa informasi dan produk yang diterima tidak akan merugikan konsumen seperti testimoni produk, harga yang ditampilkan atau manfaat. Kepercayaan yang didapat akan menjadi fondasi utama bagi konsumen untuk menikmati *live streaming* TikTok lebih lanjut.
6. *Flow state* yang memengaruhi perilaku pembelian impulsif secara signifikan menjelaskan bahwa penting bagi pelaku bisnis yang menggunakan TikTok agar mendorong penonton dari sisi emosional. *Live streaming* TikTok perlu dibentuk agar memiliki alur yang baik sehingga tidak menciptakan jeda yang membosankan yang dapat disalurkan melalui konten yang variatif sehingga membentuk kenyamanan dan kenikmatan untuk mendorong pembelian impulsif tanpa adanya pertimbangan yang lebih matang. Hal ini dapat diwujudkan seperti melalui gimik seperti kuis atau *games* yang menghibur penonton dan tetap terhubung dalam promosi produk. *Streamer* TikTok juga dapat mendorong calon konsumen untuk bertindak secara lebih cepat dengan menggunakan strategi seperti diskon dan stok yang terbatas, sehingga mendorong pembelian impulsif, merasa penawaran tidak bertahan lama. Perlu diperhatikan bagi para pelaku bisnis TikTok, walaupun pembelian impulsif didorong secara emosional, perlu adanya pendekatan secara etis agar tetap menjaga pengalaman berbelanja yang bertanggung jawab.
7. Kepercayaan konsumen memediasi pengaruh kehadiran sosial penonton terhadap *flow state*. Artinya kehadiran penonton menunjukkan bukti

sosial untuk memperkuat rasa percaya yang kemudian membuat mempercepat penonton untuk masuk dalam kondisi *flow state*. *Streamer* TikTok dapat menggabungkan interaksi penonton sebagai validasi untuk penonton lain dengan dinamika sosial yang membentuk *flow*. *Streamer* TikTok dapat mengajak penonton membagikan cerita atau menanyakan seputar produk, kemudian *streamer* dapat menanggapi dengan ciri khas mereka melalui gaya bicara dan gestur tubuh yang menghibur. Hal ini agar menjaga agar dinamika *live streaming* tetap informatif bersama dengan meningkatkan *flow* pengguna.

8. Kepercayaan konsumen memediasi pengaruh kehadiran sosial *streamer* terhadap *flow*. *Streamer* TikTok yang kredibel dapat mengurangi keraguan penonton dan *streamer* perlu membangun ciri khas yang menarik sehingga membangun daya tarik sendiri bagi penonton untuk terlibat lebih dalam. Misalnya *streamer* tersebut dapat dikenal menggunakan atribut atau kostum yang unik. Dengan dukungan pengetahuan produk yang dimiliki *streamer* TikTok terjadi keselarasan dengan hiburan yang meningkatkan pengetahuan konsumen dan meningkatkan keterlibatan yang menyenangkan.
9. Kepercayaan konsumen memediasi pengaruh *telepresence* terhadap *flow state*. *Live streaming* TikTok perlu diciptakan dengan suasana yang mendukung secara teknis seperti latar belakang, pencahayaan dan kualitas suara yang terkesan hadir dalam toko fisik dan mendukung kredibilitas *live streaming* tersebut sebagai tempat berbelanja *live streaming*. Konsumen yang yakin akan suasana nyata tersebut dapat terdorong untuk masuk dalam kondisi *flow*.
10. *Flow state* memediasi pengaruh kepercayaan konsumen terhadap perilaku pembelian impulsif. Temuan ini membuktikan bahwa *flow state* berperan untuk menjembatani secara psikologis antara rasa percaya dan tindakan spontan membeli selama *live streaming* TikTok. Kepercayaan yang telah dibangun mengindikasikan bahwa perlu adanya dukungan *flow* untuk memberikan suasana yang menyenangkan. Konten yang perlu

disampaikan tidak hanya yang bersifat informatif, namun juga menghibur seperti humor atau testimoni penggunaan sehari-hari mengenai produk yang dipromosikan, sehingga terdapat transisi dari kepercayaan yang telah dibangun dan mulai meningkatkan sisi emosional konsumen untuk melakukan pembelian impulsif.

5.3 Keterbatasan Penelitian

Penelitian ini memiliki beberapa keterbatasan yang perlu diperhatikan untuk penelitian selanjutnya:

1. Hasil *r-square adjusted* pada kepercayaan konsumen dan perilaku pembelian impulsif masih dinilai sebagai lemah. Sehingga variabel kehadiran sosial platform *live streaming*, kehadiran sosial penonton, kehadiran sosial *streamer* dan *telepresence* yang memengaruhi kepercayaan konsumen serta kepercayaan konsumen dan *flow state* yang memengaruhi perilaku pembelian impulsif masih menunjukkan kontribusi rendah. Maka ada variabel lain yang tidak ada dalam penelitian ini yang dapat memberikan kontribusi lebih besar.
2. Meskipun seluruh nilai *outer loadings* dalam penelitian ini diterima, beberapa indikator menggunakan kriteria nilai *outer loadings* $> 0,6$, yang belum mengikuti kriteria ideal yang ditetapkan SmartPLS yaitu $> 0,7$.
3. Penelitian ini hanya terbatas pada *live streaming commerce* TikTok, sehingga tidak mencakup *live streaming commerce* lainnya. Hasil dari penelitian ini tidak dapat digeneralisasikan ke platform *live streaming commerce* lainnya. Selain itu, penelitian ini tidak membatasi pada penjualan kategori produk tertentu.

5.4 Saran Penelitian

1. Variabel lain dapat diteliti dalam penelitian selanjutnya di luar penelitian ini seperti interaktivitas atau kualitas platform, khususnya yang dapat memberikan kontribusi lebih terhadap kepercayaan konsumen dan perilaku pembelian impulsif.

2. Penelitian selanjutnya dapat menggunakan kriteria nilai *outer loadings* yang telah ditetapkan SmartPLS yaitu 0,7. Perlu menyusun dan menggunakan indikator yang lebih relevan dan representatif dalam penelitian selanjutnya agar validitas konstruk meningkat dan memperkuat keterkaitan antar variabel dalam model penelitian. Hal ini dapat meningkatkan hasil dan kontribusi penelitian yang lebih kuat.
3. Penelitian selanjutnya dapat memperluas dan mencakup semua platform *live streaming* untuk menganalisis perilaku konsumen dalam *live streaming commerce* antar platform. Kemudian penelitian selanjutnya dapat melakukan pembatasan fokus pada kategori produk tertentu seperti fashion, elektronik, atau kecantikan sehingga hasil yang didapatkan lebih spesifik dan aplikatif.

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LAMPIRAN

Lampiran 1. Kuesioner

KUESIONER PENELITIAN

Pengaruh Kehadiran Sosial dalam *Live Streaming Commerce* TikTok terhadap Perilaku Pembelian Impulsif Konsumen

Perkenalkan, saya Marcel Satrioputra, mahasiswa Program Studi Manajemen Fakultas Bisnis dan Ekonomika, Universitas Atma Jaya Yogyakarta. Saat ini saya sedang melakukan penelitian dalam rangka penyusunan skripsi dengan judul "**Pengaruh Kehadiran Sosial dalam *Live Streaming Commerce* TikTok terhadap Perilaku Pembelian Impulsif Konsumen**". Saya mengundang Anda untuk mengisi kuesioner ini.

Data hasil pengisian kuesioner akan dijaga kerahasiaannya dan tidak akan disalahgunakan untuk kepentingan yang lain. Seluruh jawaban hanya digunakan untuk kepentingan akademik.

Petunjuk pengisian kuesioner:

Silakan baca setiap pernyataan di bawah ini dengan saksama dan mohon jawab jujur sesuai dengan pengalaman Anda. Setiap pernyataan memiliki lima pilihan jawaban, dan tidak ada jawaban yang benar atau salah. Harap berikan jawaban yang paling sesuai dengan kondisi Anda saat ini.

Skala Penilaian:

- 1 = Sangat Tidak Setuju
- 2 = Tidak Setuju
- 3 = Netral
- 4 = Setuju
- 5 = Sangat Setuju

Terima kasih atas kesediaan teman-teman dalam mengisi kuesioner ini.

Pertanyaan Filter

1. Apakah Anda pernah menonton *live streaming* di aplikasi TikTok? *

- ☐ Ya
- ☐ Tidak (Jika tidak, silahkan tidak melanjutkan untuk mengisi kuesioner ini)

2. Apakah Anda pernah melakukan pembelian produk yang dijual oleh *streamer* di *live streaming* TikTok? *

- ☐ Ya
- ☐ Tidak (Jika tidak, silahkan tidak melanjutkan untuk mengisi kuesioner ini)

[Kembali](#)

[Berikutnya](#)

[Kosongkan formulir](#)

Pertanyaan Profiling

Gender *

- ☐ Perempuan
- ☐ Laki-laki

Tahun lahir *

- ☐ Gen X (1965-1980)
- ☐ Gen Y (1981-1996)
- ☐ Gen Z (1997-2012)

Seberapa sering Anda melakukan pembelian di *live streaming* TikTok? *

- ☐ 1 - 3 kali dalam setahun
- ☐ 4 - 6 kali dalam setahun
- ☐ Lebih dari 6 kali dalam setahun

Kehadiran sosial platform *live streaming* TikTok

Kehadiran sosial dalam platform *live streaming* terjadi ketika pelanggan berinteraksi dengan orang lain, menciptakan rasa kebersamaan dan hubungan dekat antara *streamer* dan penonton.

1. Ada interaksi dengan orang lain dalam *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

2. Ada kesan personal dalam *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

3. Ada keterlibatan untuk bersosialisasi dalam *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

4. Ada kenyamanan dengan orang lain dalam *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

5. Ada perhatian orang lain dalam *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

[Kembali](#)

[Berikutnya](#)

[Kosongkan formulir](#)

Kehadiran sosial penonton

Kehadiran sosial penonton menggambarkan bagaimana seseorang dapat merasakan keberadaan penonton lain saat *live streaming* berlangsung.

1. Saya tahu ada penonton lain yang tertarik dengan produk tersebut melalui *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

2. Saya tahu ada penonton lain yang saling berbagi informasi mengenai produk melalui *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

3. Saya tahu ada penonton lain yang membeli produk tersebut melalui *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

Kehadiran sosial *streamer*

Kehadiran sosial *streamer* mengacu pada sejauh mana pelanggan merasakan interaksi langsung dengan *streamer* dalam streaming langsung.

1. Saya memahami sikap para *streamer* dengan berinteraksi kepada mereka melalui *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

2. Ada kesan nyata dan personal ketika berkomunikasi dengan *streamer* melalui *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

3. Berinteraksi dengan penjual sebagai *streamer* di *live streaming* TikTok terasa lebih dekat. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

Telepresence

Telepresence adalah perasaan seolah-olah sedang berada di suatu tempat atau lingkungan, meskipun sebenarnya tidak berada di sana secara fisik.

1. Ketika menonton *live streaming* di TikTok, saya merasa seolah-olah sedang berbelanja di toko fisik. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

2. Ketika menonton *live streaming* di TikTok, saya merasa lebih berada di "dunia maya" dibandingkan "dunia nyata" di sekitar saya. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

3. Ketika menonton *live streaming* di TikTok, meskipun tubuh saya berada di dalam ruangan, saya merasa pikiran saya berada di dalam dunia yang diciptakan oleh *streamer*. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

Kepercayaan konsumen

Kepercayaan konsumen adalah keyakinan bahwa produk, merek, atau penjual memiliki kualitas dan kemampuan untuk memenuhi harapan serta janji yang diberikan.

1. Saya percaya pada informasi yang diberikan *streamer* melalui *live streaming* di TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

2. Saya yakin bahwa *streamer* di *live streaming* TikTok dapat dipercaya. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

3. Saya yakin bahwa *streamer* di *live streaming* TikTok bersikap jujur dan tidak akan merugikan saya. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

4. Saya percaya bahwa produk yang saya terima akan sama dengan yang ditampilkan di *live streaming* TikTok. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

Flow state (konsentrasi)

Konsentrasi terjadi ketika seseorang benar-benar fokus pada satu hal tertentu tanpa terganggu oleh hal lain di sekitarnya.

1. Ketika menonton *live streaming* di TikTok, saya tidak ingin mengalihkan * pandangan dari *live streaming*.

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

2. Ketika menonton *live streaming* di TikTok, saya mengabaikan apa yang * terjadi di sekitar saya.

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

3. Ketika menonton *live streaming* di TikTok, saya lupa apa yang harus * saya lakukan.

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

Flow state (kepuasan berbelanja)

Kepuasan adalah rasa senang yang muncul secara alami saat seseorang berinteraksi dengan lingkungan sekitarnya.

1. Ketika menonton *live streaming* di TikTok, saya dapat menikmatinya. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

2. Ketika menonton *live streaming* di TikTok, saya merasa tertarik. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

3. Ketika menonton *live streaming* di TikTok, saya merasa senang. *

	1	2	3	4	5	
Sangat tidak setuju	☐	☐	☐	☐	☐	Sangat setuju

Perilaku Pembelian Impulsif

Pembelian impulsif adalah tindakan membeli sesuatu secara tiba-tiba tanpa perencanaan sebelumnya, biasanya dilakukan dengan cepat karena keinginan kuat untuk memiliki.

1. Ketika menonton *live streaming* di TikTok, saya merasa sulit untuk melewati penawaran yang diberikan. *

Sangat tidak setuju 1 2 3 4 5 Sangat setuju

☐ ☐ ☐ ☐ ☐

2. Ketika menonton *live streaming* di TikTok, saya cenderung kurang berpikir matang saat membeli produk. *

Sangat tidak setuju 1 2 3 4 5 Sangat setuju

☐ ☐ ☐ ☐ ☐

3. Ketika menonton *live streaming* di TikTok, saya membeli produk yang ditampilkan oleh *streamer* meskipun saya tidak membutuhkannya. *

Sangat tidak setuju 1 2 3 4 5 Sangat setuju

☐ ☐ ☐ ☐ ☐

4. Ketika menonton *live streaming* di TikTok, terkadang saya tidak dapat menahan rasa ingin membeli produk. *

Sangat tidak setuju 1 2 3 4 5 Sangat setuju

☐ ☐ ☐ ☐ ☐

Lampiran II. Filter, Profil, dan Data Responden

Pertanyaan Filter

[illegible]

Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya
Ya	Ya

Profil Responden

Gender	Tahun lahir	Seberapa sering Anda melakukan pembelian di <i>live streaming</i> TikTok?
Perempuan	Gen Y (1981-1996)	4 - 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen X (1965-1980)	Lebih dari 6 kali dalam setahun
Perempuan	Gen X (1965-1980)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Y (1981-1996)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen X (1965-1980)	1 - 3 kali dalam setahun
Perempuan	Gen X (1965-1980)	Lebih dari 6 kali dalam setahun
Perempuan	Gen X (1965-1980)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Y (1981-1996)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Y (1981-1996)	1 - 3 kali dalam setahun
Perempuan	Gen Y (1981-1996)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Y (1981-1996)	4 - 6 kali dalam setahun
Laki-laki	Gen X (1965-1980)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun

Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen X (1965-1980)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Y (1981-1996)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Y (1981-1996)	1 - 3 kali dalam setahun
Laki-laki	Gen X (1965-1980)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Y (1981-1996)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen X (1965-1980)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Y (1981-1996)	4 - 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Laki-laki	Gen X (1965-1980)	4 - 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen X (1965-1980)	1 - 3 kali dalam setahun
Laki-laki	Gen Y (1981-1996)	1 - 3 kali dalam setahun
Laki-laki	Gen Y (1981-1996)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
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Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
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Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun

Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Y (1981-1996)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Y (1981-1996)	1 - 3 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Y (1981-1996)	4 - 6 kali dalam setahun
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Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen X (1965-1980)	Lebih dari 6 kali dalam setahun
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Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
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Perempuan	Gen Y (1981-1996)	1 - 3 kali dalam setahun
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Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun
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Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
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Perempuan	Gen Y (1981-1996)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun

Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Y (1981-1996)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
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Laki-laki	Gen Y (1981-1996)	1 - 3 kali dalam setahun
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Laki-laki	Gen Y (1981-1996)	1 - 3 kali dalam setahun
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Laki-laki	Gen X (1965-1980)	1 - 3 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
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Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
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Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun

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Laki-laki	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
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Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
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Perempuan	Gen Z (1997-2012)	1 - 3 kali dalam setahun
Perempuan	Gen X (1965-1980)	1 - 3 kali dalam setahun
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Laki-laki	Gen Z (1997-2012)	4 - 6 kali dalam setahun
Perempuan	Gen X (1965-1980)	4 - 6 kali dalam setahun
Laki-laki	Gen Y (1981-1996)	4 - 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Perempuan	Gen Z (1997-2012)	Lebih dari 6 kali dalam setahun
Laki-laki	Gen Z (1997-2012)	1 - 3 kali dalam setahun

Data Responden

Kehadiran Sosial Platform *Live Streaming*

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Kehadiran Sosial Penonton

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Kehadiran Sosial Streamer

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Kepercayaan Konsumen

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Flow State

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Perilaku Pembelian Impulsif

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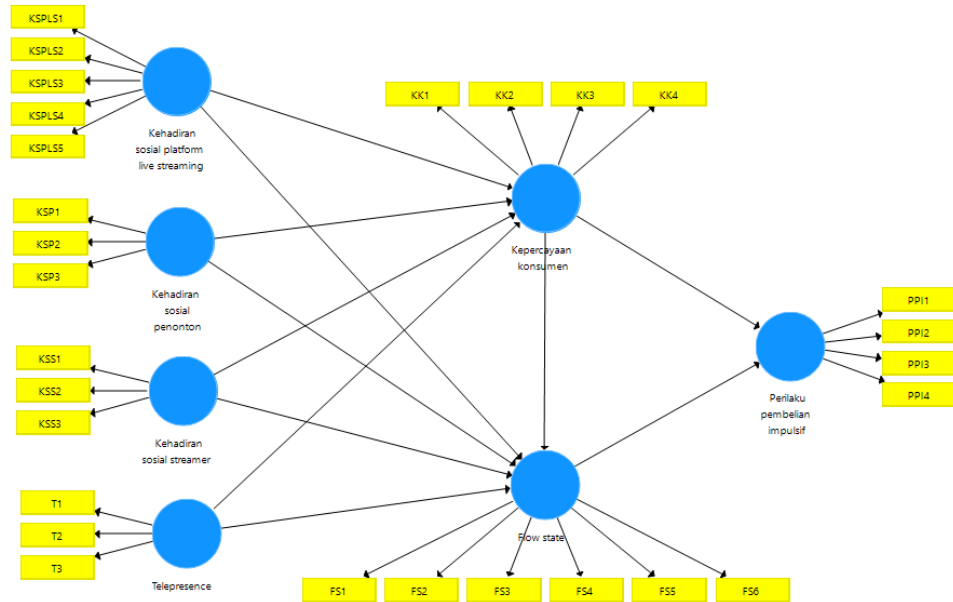
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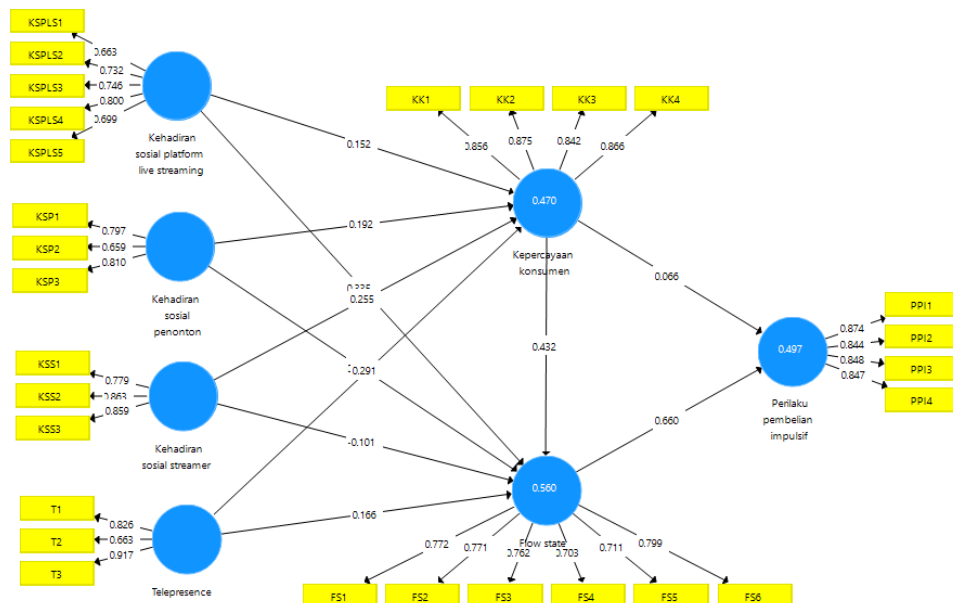
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Lampiran III. Analisis Data

1. Model Struktural



2. Model Konstruk



3. Outer Loadings

Outer Loadings

Matrix Copy to Clipboard: [Excel Format](#) [R Format](#)

	Flow State	Kehadiran Sosi...	Kehadiran Sosial Platform Live Streaming	Kehadiran Sosial Streamer	Kepercayaan Konsumen	Perilaku Pembelian Impulsif	Telepresence
FS1	0.772						
FS2	0.771						
FS3	0.762						
FS4	0.703						
FS5	0.711						
FS6	0.799						
KK1					0.856		
KK2					0.875		
KK3					0.842		
KK4					0.866		
KSP1		0.797					
KSP2		0.659					
KSP3		0.810					
KSPLS1			0.663				
KSPLS2			0.732				
KSPLS3			0.746				
KSPLS4			0.800				
KSPLS5			0.699				
KSS1				0.779			
KSS2				0.863			
KSS3				0.859			
PPI1						0.874	
PPI2						0.844	
PPI3						0.848	
PPI4						0.847	
T1							0.826
T2							0.663
T3							0.917

4. Average Variance Extracted

Construct Reliability and Validity

Matrix	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
	Cronb...	rho_A	Com...	Average Variance Extracted (AVE)
Flow State	0.847	0.849	0.887	0.568
Kehadiran Sosial Penonton	0.635	0.661	0.801	0.575
Kehadiran Sosial Platform Live Streaming	0.779	0.785	0.850	0.532
Kehadiran Sosial Streamer	0.782	0.796	0.873	0.696
Kepercayaan Konsumen	0.882	0.883	0.919	0.739
Perilaku Pembelian Impulsif	0.876	0.877	0.915	0.728
Telepresence	0.729	0.781	0.848	0.654

5. Cross Loadings

Discriminant Validity

	Fornell-Larcker Criterion	Cross Loadings	Heterotrait-Monotrait Ratio (HTMT)	Heterotrait-Monotrait Ratio (HTMT)	Copy to Clipboard: Excel Format R Format			
^	Flow State	Kehadiran Sosial Penonton	Kehadiran Sosial Platform Live Streaming	Kehadiran Sosial Streamer	Kepercayaan Konsumen	Perilaku Pembelian L...	Telepresence	
FS1	0.772	0.324	0.399	0.232	0.463	0.553	0.429	
FS2	0.771	0.268	0.310	0.225	0.452	0.612	0.405	
FS3	0.762	0.178	0.308	0.093	0.368	0.623	0.380	
FS4	0.703	0.482	0.540	0.483	0.572	0.425	0.428	
FS5	0.711	0.419	0.568	0.358	0.584	0.420	0.356	
FS6	0.799	0.420	0.589	0.277	0.550	0.548	0.451	
KK1	0.554	0.429	0.408	0.464	0.856	0.500	0.468	
KK2	0.566	0.411	0.406	0.456	0.875	0.355	0.465	
KK3	0.593	0.510	0.470	0.450	0.842	0.418	0.521	
KK4	0.561	0.368	0.449	0.426	0.866	0.450	0.470	
KSP1	0.301	0.797	0.380	0.341	0.432	0.144	0.313	
KSP2	0.301	0.659	0.373	0.271	0.251	0.191	0.301	
KSP3	0.438	0.810	0.388	0.263	0.428	0.370	0.437	
KSPLS1	0.351	0.353	0.663	0.361	0.357	0.195	0.185	
KSPLS2	0.459	0.310	0.732	0.243	0.300	0.222	0.340	
KSPLS3	0.448	0.421	0.746	0.483	0.439	0.335	0.379	
KSPLS4	0.516	0.402	0.800	0.301	0.352	0.367	0.411	
KSPLS5	0.416	0.320	0.699	0.327	0.388	0.351	0.374	
KSS1	0.238	0.295	0.318	0.779	0.388	0.107	0.270	
KSS2	0.334	0.294	0.383	0.863	0.431	0.241	0.350	
KSS3	0.339	0.358	0.466	0.859	0.482	0.346	0.420	
PPI1	0.613	0.315	0.315	0.265	0.525	0.874	0.457	
PPI2	0.583	0.284	0.393	0.259	0.439	0.844	0.392	
PPI3	0.637	0.235	0.368	0.192	0.351	0.848	0.487	
PPI4	0.563	0.266	0.321	0.273	0.399	0.847	0.391	
T1	0.451	0.357	0.387	0.314	0.447	0.367	0.826	
T2	0.283	0.367	0.306	0.352	0.385	0.387	0.663	
T3	0.543	0.420	0.436	0.370	0.519	0.479	0.917	

6. Crobach's Alpha dan Composite Reliability

Construct Reliability and Validity

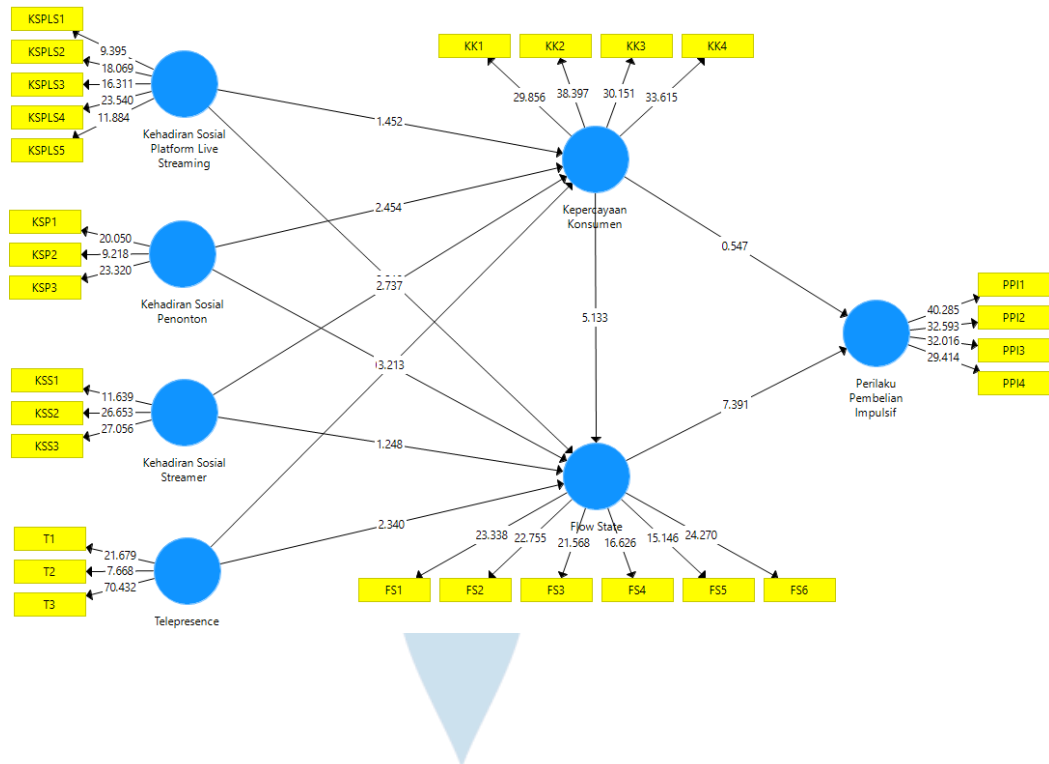
Matrix	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
	Cronbach's Alpha	rho_A	Composite Reliability	Average Varian...
Flow State	0.847	0.849	0.887	0.568
Kehadiran Sosi...	0.635	0.661	0.801	0.575
Kehadiran Sosi...	0.779	0.785	0.850	0.532
Kehadiran Sosi...	0.782	0.796	0.873	0.696
Kepercayaan K...	0.882	0.883	0.919	0.739
Perilaku Pemb...	0.876	0.877	0.915	0.728
Telepresence	0.729	0.781	0.848	0.654

7. R-Square

R Square

Matrix	R Square	R Square Adjusted
Flow State	0.560	0.548
Kepercayaan Konsumen	0.470	0.458
Perilaku Pembelian Impulsif	0.497	0.492

8. Bootstrapping



9. Path Coefficient

Path Coefficients

Mean, STDEV, T-Values, P-Values	Confidence Intervals	Confidence Intervals Bias Corrected	Samples		
	Original Sampl...	Sample Mean (...)	Standard Devia...	T Statistics (O/...	P Values
Flow State -> Perilaku Pembelian Impulsif	0.660	0.679	0.089	7.391	0.000
Kehadiran Sosial Penonton -> Flow State	0.042	0.043	0.078	0.543	0.588
Kehadiran Sosial Penonton -> Kepercayaan Konsumen	0.192	0.200	0.078	2.454	0.014
Kehadiran Sosial Platform Live Streaming -> Flow State	0.335	0.314	0.101	3.319	0.001
Kehadiran Sosial Platform Live Streaming -> Kepercayaan Konsumen	0.152	0.174	0.105	1.452	0.147
Kehadiran Sosial Streamer -> Flow State	-0.101	-0.088	0.081	1.248	0.213
Kehadiran Sosial Streamer -> Kepercayaan Konsumen	0.255	0.243	0.093	2.737	0.006
Kepercayaan Konsumen -> Flow State	0.432	0.435	0.084	5.133	0.000
Kepercayaan Konsumen -> Perilaku Pembelian Impulsif	0.066	0.045	0.120	0.547	0.585
Telepresence -> Flow State	0.166	0.178	0.071	2.340	0.020
Telepresence -> Kepercayaan Konsumen	0.291	0.273	0.091	3.213	0.001

10. Specific Indirect Effects

Specific Indirect Effects

Mean, STDEV, T-Values, P-Values	Confidence Intervals	Confidence Intervals Bias Corrected	Samples	Copy to Clipboard:	Excel Format	R Format
	Original Sample (O)	Sample Mean (...)	Standard Devia...	T Statistics (O/...	P Values	
Kehadiran Sosial Platform Live Streaming -> Flow State -> Perilaku Pembelian Impulsif	0.221	0.208	0.059	3.738	0.000	
Kepercayaan Konsumen -> Flow State -> Perilaku Pembelian Impulsif	0.285	0.297	0.078	3.647	0.000	
Telepresence -> Kepercayaan Konsumen -> Flow State	0.126	0.117	0.042	3.003	0.003	
Telepresence -> Kepercayaan Konsumen -> Flow State -> Perilaku Pembelian Impulsif	0.083	0.078	0.028	2.958	0.003	
Kehadiran Sosial Streamer -> Kepercayaan Konsumen -> Flow State -> Perilaku Pembelian Impulsif	0.073	0.070	0.028	2.587	0.010	
Kehadiran Sosial Streamer -> Kepercayaan Konsumen -> Flow State	0.110	0.104	0.043	2.586	0.010	
Kehadiran Sosial Penonton -> Kepercayaan Konsumen -> Flow State	0.083	0.086	0.037	2.228	0.026	
Kehadiran Sosial Penonton -> Kepercayaan Konsumen -> Flow State -> Perilaku Pembelian Impulsif	0.055	0.059	0.028	1.944	0.052	
Telepresence -> Flow State -> Perilaku Pembelian Impulsif	0.110	0.125	0.059	1.849	0.065	
Kehadiran Sosial Streamer -> Flow State -> Perilaku Pembelian Impulsif	-0.067	-0.057	0.052	1.275	0.203	
Kehadiran Sosial Platform Live Streaming -> Kepercayaan Konsumen -> Flow State	0.066	0.080	0.055	1.190	0.235	
Kehadiran Sosial Platform Live Streaming -> Kepercayaan Konsumen -> Flow State -> Perilaku Pembelian Impulsif	0.043	0.057	0.044	0.993	0.321	
Kehadiran Sosial Penonton -> Flow State -> Perilaku Pembelian Impulsif	0.028	0.028	0.052	0.541	0.589	
Telepresence -> Kepercayaan Konsumen -> Perilaku Pembelian Impulsif	0.019	0.018	0.036	0.531	0.595	
Kehadiran Sosial Streamer -> Kepercayaan Konsumen -> Perilaku Pembelian Impulsif	0.017	0.014	0.032	0.522	0.602	
Kehadiran Sosial Penonton -> Kepercayaan Konsumen -> Perilaku Pembelian Impulsif	0.013	0.008	0.025	0.507	0.613	
Kehadiran Sosial Platform Live Streaming -> Kepercayaan Konsumen -> Perilaku Pembelian Impulsif	0.010	0.002	0.024	0.423	0.673	

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How social presence influences impulse buying behavior in live streaming commerce? The role of S-O-R theory

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Abstract

Purpose – This paper aims to examine how presence (the social presence of live streaming platforms, of viewers, of live streamers and telepresence) affects consumer trust and flow state, thus inducing impulsive buying behaviors, personal sense of power as moderator.

Design/methodology/approach – Drawing on the Stimulus-Organism-Response (S-O-R) framework, the conceptual model covers social presence, telepresence, consumer trust, flow state, personal sense of power and impulsive buying behavior. An online survey was conducted from 405 consumers with the experience of live streaming shopping in China; structural equation modeling (SEM) was used for data analysis.

Findings – Results find that three dimensions of social presence (the social presence of live streaming platforms, of viewers, of live streamers) and telepresence have a positive and significant influence on consumer trust and flow state, thus triggering consumers' impulsive buying behavior. Furthermore, consumers' sense of power moderates the process from consumer trust, flow state to impulsive buying behavior.

Practical implications – This study will help live streamers and e-retailers to have a further understand on how to stimulate consumers' buying behavior. Furthermore, it also provides reference for the development of live streaming commerce in other countries.

Originality/value – This research examines the effect of social presence and telepresence on impulsive buying behavior in live streaming commerce, which is inadequately examined in extant literature.

Keywords Presence, S-O-R theory, Impulsive buying behavior, Live streaming commerce, Flow theory, Social presence

Paper type Research paper



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1. Introduction

Live streaming currently gains increasing popularity. Several vendors start to employ live streaming to improve their selling efficiency in China, which has triggered the emergence of a new form of e-commerce termed as live streaming commerce (Sun *et al.*, 2019). According to the China Internet Network Information Center (CNNIC, 2021), by the end of December 2020, China's live streaming users reached 617 million, accounting for 62.4% of the total Internet users. Among them, live streaming commerce users arrived at 388 million, occupying 39.2% of the total Internet users. China's live streaming commerce market is expected to reach \$305bn dollars in 2021, occupying over 15% of e-commerce sales in China

in 2021, and more than 20% by 2022 (Hallanan, 2020). A massive potential remains for the growth of live streaming commerce, as it reshapes the way people shop. Consumers can not only view text messages and pictures but also watch real-time video and interact with sellers in real time. Attracted by the real-time interaction and rich content, nearly all major e-commerce platforms in China have developed live streaming commerce, such as Taobao.com, JD.com, and Pingduoduo.com. Additionally, many social media platforms also have joined to the new trend one after another.

The prevalence of live streaming commerce is explained by the fact that it contains the attributes of both social commerce and social media (Cai and Wohn, 2019). Live streaming commerce is defined as a new type of e-commerce integrating real-time social interaction through live streams (Cai *et al.*, 2018). The social commerce and social media attributes are embodied in the real-time interaction among live streamers and viewers. Live streaming commerce allows live streamers to show commodity in real-time videos and enables viewers to ask questions through bullet screen, which offers potential consumers further details of products and provides them a sense of presence, thus affecting viewers' purchase intention (Wongkitrungrueng and Assarut, 2018). The popularity of live streaming has triggered many scholars' interest. However, this new social phenomenon of live streaming commerce has not gained sufficient attention probably because it has only developed for a few years in China (Wongkitrungrueng *et al.*, 2020).

Prior research of live streaming commerce has mainly highlighted what motivates live streamers and viewers to participate in live streaming (Chen and Lin, 2018; Zhao *et al.*, 2018). Some studies have investigated utilitarian or hedonic motivations (Cai *et al.*, 2018), perceived values (Wongkitrungrueng and Assarut, 2018), while some have explored the influence of system features in live streaming commerce such as the gift-giving feature (Yu *et al.*, 2018) or user interface design (Xu *et al.*, 2020). However, one of the primary features of live streaming commerce is presence, which is analyzed inadequately in extant literature. The lack of presence in e-commerce is likely to hold down consumers' participation (Hamari *et al.*, 2016), whereas presence is enhanced in live streaming commerce with the development of technology (Liu *et al.*, 2020). The social presence and telepresence help consumers to develop a closer relationship between e-vendors and better understand the service/product they desire (Ye *et al.*, 2020). Meanwhile, presence can induce impulsive buying behaviors (Shen and Khalifa, 2012), which is quite common in live streaming commerce (Zahari *et al.*, 2021). Nevertheless, few studies have explored the effect of presence on impulsive buying behavior in live streaming commerce.

To close these research gaps, a study on impulsive buying behavior in live streaming commerce was conducted in the context of China by focusing on presence, as the development of live streaming commerce in China is fast and representative (Cunningham *et al.*, 2019). The main objective of this study is to examining how different types of presence (social presence of live streaming platform, social presence of viewers, social presence of streamers and telepresence) exert influences on consumers' impulsive purchase in live streaming commerce, drawing on the Stimulus-Organism-Response (SOR) framework. SOR model is widely used to examine consumer behavior in behavioral science field (van Zeeland and Henseler, 2018), presuming that stimuli are factors that induce the response of the organism (de Matos and Krielow, 2019). SOR model is suitable for the context of live streaming commerce, as we have stimuli (presence) affecting consumers' appraisements (consumer trust, flow state), which in turn lead to consumers' responses (impulsive buying behavior). To reach the objective, the study attempts to address the following research questions:

Q1. How does presence influence impulsive buying behavior in live streaming commerce?

Q2. Does the personal sense of power have a moderating effect on impulsive buying behavior?

The rest of the paper is organized as follows: First, we present a literature review of the relevant constructs followed by the research model and related hypotheses. Second, we describe the research methodology, data analysis, and results. Third, we discuss the study's findings from the perspective of theoretical and managerial implications, with limitations of the study and future research directions following thereafter.

2. Theoretical background

2.1 S-O-R model

Woodworth (1929) initially put forward the SOR model on the basis of the traditional stimulus-response theory. Later, Mehrabian and Russell (1974) theoretically extended this model, and Jacoby (2002) modified it by incorporating the organism's element between the stimulus and response. The model constructed a mechanism to explain human behaviors by analyzing humans' cognitive and affective states influenced by the environmental stimulus (Shah *et al.*, 2020).

The model explains "stimulus" as the environmental factor arousing the internal, organismic states (Song *et al.*, 2021). Previous studies on live streaming commerce have implied that the real-time interactions between viewers and live streamers in live streams bring viewers a strong sense of presence, fulfilling viewers' needs, which in turn influences the potential consumers' attitudes and behaviors (Gao *et al.*, 2018). Therefore, presence in live streaming commerce is a strong stimulus to influence consumers' behaviors.

In the model, "organism" refers to humans' affective and cognitive intermediary states that mediate the influence of the stimulus on individuals' responses (Wu and Li, 2018). The affective state refers to individuals' emotional responses to an environmental stimulus (Sun and Zhang, 2015), while the cognitive state is associated with the mental process when facing stimulus (Fu, 2018). This study employs consumer trust and flow state to explore viewers' affective and cognitive states on the sense of presence in live streaming commerce.

The model defines "response" as individuals' final decisions and behaviors based on affective and cognitive states (Sherman *et al.*, 1997). Three main kinds of consumer behaviors (purchase intention, unplanned purchase intention and intention to return) exist in e-commerce (Koufaris, 2002). This study focuses on the impulsive purchase. Recent studies have used SOR model to examine consumers' online behaviors in e-commerce, such as online repurchase intention (Zhu *et al.*, 2019), purchase intention (Liu *et al.*, 2018), and impulsive buying intention (Zhu *et al.*, 2020). These studies have confirmed the inter-relationship of SOR model and enhanced the rationality of this study.

2.2 Flow theory

The term "flow" is used to describe the state of mind where people become deeply engrossed in the current activity (Ghani *et al.*, 1991). Csikszentmihalyi (1975) first introduced flow theory to explain how full engagement in an activity of internal satisfaction or pleasure will stimulate a holistic feeling. The theory is characterized by narrowing the focus of awareness to filter out unrelated perceptions (Csikszentmihalyi, 2020). Previous studies have used flow theory to continuance usage intention (Lee and Kim, 2017), online impulse buying (Wu *et al.*, 2020), purchase intention (Kim *et al.*, 2017). Flow has been recommended as a potential metric of online consumer experience (Ding, 2011). The dimensions of flow are broad and

ill-defined as flow has been operationalized, tested and applied in various ways (Carlson *et al.*, 2017). This study divided flow into two dimensions, namely, concentration and enjoyment according to Ghani *et al.* (1991).

Concentration happens when individuals are self-unconscious to merely focus on a limited stimulus environment with no irrelevant perceptions and thoughts (Wu *et al.*, 2016), while enjoyment refers to the intrinsic joy that individuals feel when interacting with the environment (Park *et al.*, 2012). In e-commerce, enjoyment can be viewed as shopping enjoyment (Koufaris, 2002), which dramatically affects consumer behavior (Lee and Park, 2014).

2.3 Online impulsive buying behavior

Impulsive buying is stimulated by a sudden, often powerful, and persistent urge to buy something spontaneously, unreflectively, immediately and kinetically (Rook and Fisher, 1995). Online shopping is more likely to lead to impulsive purchases than traditional shopping (Wu *et al.*, 2020), as online transactions lead to the overspending of many consumers due to the virtual process giving them an illusion of not spending their own money (Park *et al.*, 2012).

A considerable amount of external stimuli such as product-related promotion and recommendations from previous purchasers are noticed (Madhavaram and Laverie, 2004), thereby making the live streaming shoppers stand out among online shoppers. Live streamers display every detail of a product, try it out for viewers and interact with them in real-time (Xu *et al.*, 2019). This kind of interaction occurring among live streamers and viewers and detailed presentation of products can easily trigger impulsive buying behavior as both ends of the screen are pulling in the direction of purchase (Wongkitrungrueng and Assarut, 2018).

Nevertheless, impulsive buying behavior in live streaming commerce remains underexplored. Only some studies have investigated the factors that influence consumers to buy impulsively in live streaming commerce from the perspective of the consumer and vendor sides (Leeraphong and Sukrat, 2018; Xu *et al.*, 2019). Therefore, this study attempts to contribute to the literature on online impulsive buying behavior by exploring a significant factor, namely, presence in live streaming commerce.

3. Conceptual model and hypothesis development

3.1 Social presence of live streaming platform, consumer trust and the flow state

Consumer trust in e-commerce covers the trust of the salesperson, vendor, product, channel, and company (Komiak and Benbasat, 2004). Consumer trust in this study refers to the trust in product and streamer in live streaming commerce. Consumer trust on a product describes the extent to which viewers believe that the features, quality and the after-sale service of the products displayed in the live stream are as good as described by live streamers (Wongkitrungrueng *et al.*, 2020), while trust on streamers explains the extent to which viewers believe in streamers' willingness to put themselves in consumers' shoes and capability to offer high-quality and personalized service (Wongkitrungrueng and Assarut, 2018). The social presence of live streaming platforms will bridge the psychological distance between buyers and sellers, thus increasing consumers' trust on both products and streamers (Darke *et al.*, 2016), as ambiguity and risk can be reduced in live streams (Lee, 2018). Previous studies have confirmed the positive effect of the web's social presence on consumer trust (Lu *et al.*, 2016; Ye *et al.*, 2020). Therefore, a relationship between social presence of live streaming platforms and consumer trust is presumed.

Social presence of live streaming platform can influence the flow state as well. In traditional e-commerce, buyers conduct online transactions by interacting with the website (Lu *et al.*, 2016), whereas, in live streaming commerce, viewers purchase products by sending bullets and gifts to interact with the live streaming platform. Live streaming allows viewers to watch video streams in real-time, enhancing sociability through synchronous communication via chat channels (Bründl *et al.*, 2017). When viewers stay focused and feel pleasant in live streaming, a state of flow comes to being (Chen and Lin, 2018). The transmission technology in live streaming platform can synchronously and instantly send sounds and images from a remote location, thus making viewers feel as if they were physically present during the live streaming. The co-experience with live streamers together enhances viewers' viewing experience (Bründl *et al.*, 2017), thus increasing the concentration and enjoyment of viewers. Previous studies have explored the relationship between the web's social presence and the flow state (Li *et al.*, 2018). Considering the function of the live streaming platform is similar to the website, we suggest that the relationship between social presence of the platform and flow state also exists in live streaming commerce. Hence, the following hypotheses are proposed:

- H1a. Social presence of live streaming platform is positively related to consumer trust in live streaming commerce.
- H1b. Social presence of live streaming platform is positively related to flow state in live streaming commerce.

3.2 Social presence of viewers' influence on consumer trust and flow state different

From traditional shopping, in online shopping, consumers cannot physically touch and see the product; instead, they can only imagine goods through pictures or text descriptions of the products (Jiang *et al.*, 2019). However, shopping is a kind of social activity. Communication among consumers makes online shopping more social, thereby reducing the sense of unreality (Pavlou *et al.*, 2007). In live streaming commerce, viewers can know products or live streaming better through other viewers' e-WOM. If the remarks from peers are positive, viewers tend to trust more in live streamers and the products they display, as persuasion works better when it is made from similar others (Lu *et al.*, 2016). Prior studies have confirmed that buyers' social presence can positively influence consumer trust (Ye *et al.*, 2020), as live streaming viewers are potential buyers. The relationship also works in live streaming shopping.

Live streaming commerce combines real-time video content with a text-based chat channel (Hamilton *et al.*, 2014). Viewers can co-experience live streams together and affect each other's viewing experience via the chat channel (Lim *et al.*, 2012). The interactivity between viewers in chat box gives viewers a better sense of social presence (Kim, 2015) thus encouraging them to participate in and be immersed in the information exchange (Li *et al.*, 2018). When they are immersed in a virtual shopping activity, viewers tend to experience a state of pleasure and generate a flow state (Sun *et al.*, 2019). Previous research has confirmed that social presence positively affects flow state in live streaming (Li *et al.*, 2018). Therefore, the following hypotheses are proposed:

- H2a. Social presence of viewers is positively related to consumer trust in live streaming commerce.
- H2b. Social presence of viewers is positively related to flow state in live streaming commerce.

3.3 Social presence of streamers, flow state, and consumer trust

Consumer trust in online trading is likely to be affected the reputation of e-vendors (Oliveira *et al.*, 2017), and the lack of face-to-face communication, reducing psychological connections and human warmth (Ye *et al.*, 2020). Live streaming commerce with new technology owns better sense of social presence, as live streamers are allowed to display products in detail through video, interact with viewers in real-time, and offer viewers personalized service (Wongkitrungrueng and Assarut, 2018). The social presence of streamers closes the psychological distance between viewers and streamers, and can help viewers better understand the product they desire, thus increasing viewers' sense of trust (Jiang *et al.*, 2019). Previous studies have explored the influences that social presence of sellers exerts on consumer trust (Ye *et al.*, 2020). As live streamers can also be viewed as sellers, a connection is assumed to exist between the social presence of streamers and consumer trust.

Social presence of streamers enhances viewers' concentration in live streaming commerce, as streamers can provide better personalized services according to viewers' demand (Yim *et al.*, 2017). Additionally, consumers' shopping enjoyment can be increased by more human elements in live streaming commerce, where viewers can see streamers and contact with them in real-time as if they were communicating face-to-face (Liu *et al.*, 2020). Social live streaming services can be viewed as hedonic information systems (Bründl *et al.*, 2017). Consumers' perceived enjoyment is an essential motivation for viewers to use live streaming commerce (Wirtz and Göttel, 2016). The increasing concentration and shopping enjoyment can generate flow state. Prior research has confirmed that social presence can increase consumers' perceived enjoyment (Shen, 2012) and cognitive absorption (Leong, 2011). Therefore, the following hypotheses are proposed:

- H3a. Social presence of streamers is positively related to consumer trust in live streaming commerce.
- H3b. Social presence of streamers is positively related to flow state in live streaming commerce.

3.4 Telepresence, consumer trust and flow state

Live streamers are allowed to display products in detail and interact with viewers in real time via video. The richness of media such as sound and video will bring a better sense of telepresence among viewers (Sun *et al.*, 2019). A higher sense of telepresence can make consumers feel safer. The live streaming platform with higher telepresence can provide further information to viewers by streamers, other viewers and e-vendors, thus increasing the transparency (Lu *et al.*, 2016), which is positively associated with customers' perceived security in a shopping environment (Lee and Park, 2014). Previous studies have confirmed that telepresence positively influences consumer trust. Sun *et al.* (2019) explored that telepresence affects purchase intention through consumer trust in live streaming commerce. Ye *et al.* (2020) posited that telepresence in online P2P accommodation can lead to consumer trust. Therefore, this study suggests the positive links between telepresence and consumer trust.

In online shopping, a website with a higher sense of telepresence can attract customers' attention on the virtual environment presented by the website, causing a loss of awareness of the physical environment the consumers are in, thus resulting in a flow state (Bilal *et al.*, 2020). In live streaming commerce, the better telepresence attracts more viewers to participate in the interaction, spontaneously immersing them in the live stream, and thus generates a psychological feeling of concentration and enjoyment (Li and Peng, 2021). Prior

studies have focused on the relationship between telepresence and flow state. Kim and Ko (2019) explored the relationship between telepresence and flow experience in the context of virtual reality. Ma *et al.* (2021) confirmed that telepresence can stimulate flow in the mobile technology environment. Li and Peng (2021) explored that presence positively contributes to flow in live streaming. Therefore, the following hypotheses are proposed:

H4a. Telepresence is positively related to consumer trust in live streaming commerce.

H4b. Telepresence is positively related to flow state in live streaming commerce.

3.5 Consumer trust and flow state

Trust will dispel consumers' misgivings to attempt new ways of shopping, trust reduces consumers' perceived uncertainty or concerns in live streaming commerce (Wongkitrungrueng and Assarut, 2018). Being deeply engrossed in a consumption activity is difficult for consumers with perceived uncertainty or worries (Lauterbach *et al.*, 2009). As consumers enhance their trust on live streaming commerce, they are more likely to perceive enjoyment and concentrate on the activities neglecting those negative feelings, thus facilitating the flow state (Shin and Hall, 2018).

Extant research has examined the relationship between trust and flow state. Wang *et al.* (2019) confirmed that trust positively affects flow experience. Chang *et al.* (2019) explored how trust relates to flow experience. Therefore, the following hypothesis is proposed:

H5. Consumer trust is positively related to flow state in live streaming commerce.

3.6 Consumer trust and impulsive buying behavior

Based on uncertainty reduction theory, relationships can be built as others' behavior can be predicted with the decrease in uncertainty (Ballantine and Martin, 2005; Lee and Choi, 2017). The lack of face-to-face communication and physical touch in online shopping leads to social uncertainty (Kim *et al.*, 2019). The uncertainty and risk in online shopping can inhibit consumers' purchase intention (Ariffin *et al.*, 2018). Whereas, the more sense of trust the potential customers perceive, the less uncertainty and concerns they have (Tonkin *et al.*, 2019), and thus impulsive buying behavior is more likely to be stimulated.

Previous studies have investigated the positive effect of consumer trust on impulsive buying behavior. Wu *et al.* (2016) posited that consumer trust could trigger impulsive buying. Habib and Qayyum (2018) examined that the enhanced perceived trust will stimulate impulsive purchasing behavior by increasing emotional response. Yi and Jai (2020) confirmed that the sense of trust can trigger consumers' impulsive buying. We consider that the same logic can be extended to live streaming commerce. Therefore, the following hypothesis is proposed:

H6. Consumer trust is positively related to impulsive buying behavior in live streaming commerce.

3.7 Flow state and impulsive buying behavior

Flow state can motivate unplanned buying, as the increase of positive feelings will enhance consumers' tendency to purchase impulsively (Wu *et al.*, 2020). In this study, the flow state contains intrinsic enjoyment and concentration. Intrinsic enjoyment can increase customers' exploratory behavior, such as extra browsing, thus triggering impulsive behavior (Guo and

Poole, 2009), while consumers who concentrate on live streaming shopping are more likely to be stimulated by the marketing promotions on the platform, thus causing impulsive buying (Xu *et al.*, 2020).

Prior studies have investigated the positive connection between flow state and impulsive buying behavior in online shopping. Wu *et al.* (2016) explored the effect of flow experience on online impulsive buying. Wu *et al.* (2020) further examined how flow state exerts a direct and indirect effect on online impulsive buying. Considering that live streaming commerce is also a form of e-commerce, we hypothesize that the same logic can be applied to live streaming commerce. Therefore, the following hypothesis is proposed:

- H7. Flow state is positively related to impulsive buying behavior in live streaming commerce.

3.8 Consumers' sense of power as moderator

From the perspective of psychology, power is a psychological state that occurs when individuals are able to affect others, that is, the capacity to encourage or discourage stuff that people value (Morrison *et al.*, 2015). Consumers' sense of power describes the extent to which consumers perceive their capability to influence other people (Anderson *et al.*, 2012). Consumers with higher sense of power tend to influence others' attitudes and behaviors (Morrison *et al.*, 2015). If they trust the streamers, they are more likely to buy products to influence other viewers' attitudes on the live streaming (Liu and Mattila, 2017). However, as consumers with higher sense of power tend to be more optimistic about perceived risk (Anderson and Galinsky, 2006), they may buy product without a second thought, thus leading to impulsive buying. Prior research has confirmed that perceived risk will inhibit consumers' online impulse buying behaviors (Wu *et al.*, 2020). As consumers who perceive higher sense of power are inclined to influence others neglecting perceived risk, they may conduct an unplanned buying in live streaming commerce. Personal sense of power affects the influence of consumer trust in a positive manner.

Individuals with a high sense of power focus more on short-term goals than those with a low sense of power (Slabu and Guinote, 2010). Impulsive buying is triggered by a short hedonic satisfaction, which can be viewed as a short-term goal (Widagdo and Roz, 2021). Consumers with a high sense of power are inclined to perceive positive feelings overlooking negative emotions (Kim *et al.*, 2018). Those positive feelings can accelerate the transformation from flow state to impulsive purchasing behavior (Flett, 2015). Previous studies have explored that consumers' personal sense of power exacerbates the conduct of risky behavior (Kim *et al.*, 2018). Therefore, the following hypotheses are proposed:

- H8. Consumers' sense of power moderates (strengthens) the relationship between consumer trust and impulsive buying behavior.
- H9. Consumers' sense of power moderates (strengthens) the relationship between flow state and impulsive buying behavior.

4. Methodology

4.1 Research background

This study aims at exploring the effect of presence in live streaming commerce on impulsive buying behavior. The telecommunication technology enables vendors to interact with shoppers

through pictures, words and real-time videos. The real-time interaction in live streaming stimulates viewers' desire to interact with live streamers, and the streaming creates an illusion that they are physically there talking face-to-face with streamers. The enhanced sociality, interactivity, and panic-buying atmosphere in live streaming commerce can easily trigger impulsive buying. Investigating how presence (the social presence of live streaming platforms, of viewers, of live streamers and telepresence) in live streaming commerce stimulate impulsive purchasing behavior has a profound meaning for vendors (Figure 1).

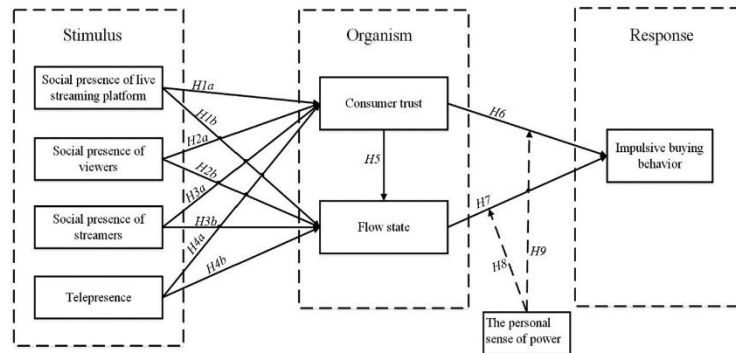
4.2 Research design

We conducted a survey to test our research model. The questionnaire contains two screen questions, six demographic information items, and thirty-two self-report items. The screen questions are applied to ensure that all the respondents have a live streaming shopping experience. The questionnaire includes eight variables: social presence (three dimensions), telepresence, consumer trust, flow state, personal sense of power and impulsive buying behavior. The questionnaire was written in English, but the survey was conducted in China. Therefore, to reduce translation errors, a back-translation approach was used, which is suggested by Brislin (1970). We invited two Chinese graduates who major in English to translate the survey into the Chinese version. Then, we distributed the questionnaire to five consumers with live streaming shopping experience to ensure clarity and ease of understanding of each item. Finally, we invited another two Chinese graduates majoring in English to translate the Chinese version into English version to ensure consistency between the new English version of the questionnaire and the original one.

4.3 Data collection

An online survey was conducted in China to collect data through Weijuanxing website (www.wjx.cn/), the most popular online survey site in China, with a sample database of 26 million Chinese individuals (Fan *et al.*, 2020). We invited live streaming users to fill in questionnaire in different online communities and also sent emails to potential respondents in different mailing lists. The IP address of each respondent was checked to avoid replications once the online questionnaires were received. Two screen questions were designed to identify respondents. If the answer of each question was no, then the answer ended, and the questionnaire was viewed as invalid. In addition, if respondents' time spent

Figure 1.
Map of hypothesis



in answering the questionnaire was less than half minute, their questionnaires were classified as invalid to guarantee that they faithfully and earnestly answer the questions. We conducted a pilot study with 45 consumers who had live streaming shopping experience to verify the reasonability of the questionnaire's construct and the clarity of each item. The results showed that all the respondents understood each item well. Then, we started the final formal survey. The data were collected from August 2, 2020, to August 31, 2020. Finally, we collected a total of 451 responses, with 405 valid responses, 46 invalid ones where 31 respondents answered "no" in the first or second screen question, and 15 respondents spent less than half minute in finishing the questionnaire.

As shown in Table 1, of all the valid samples, 40.25% were male (n = 163) and 59.75% were female (n = 242). Most of the respondents were between the age of 18 and 35 (n = 363; 89.38%), and most either had a bachelor's degree (n = 171; 42.22%) or went to college (n = 187; 46.17%) before. Most respondents were office staff (n = 291, 71.85%), while the majority of respondents earned 2000–8000 yuan a month (n = 271, 66.92%). As for the frequency of live streaming shopping, most shopped via live streaming more than once a month (n = 228; 56.3%).

4.4 Measurement

All the items were designed based on prior studies, with minor modifications to ensure face validity in live streaming commerce. Social presence of live streaming platform (five items) was measured on a scale adapted from Sun *et al.* (2019), while the social presence of viewers (three items), and social presence of streamers (three items) were from Ye *et al.* (2020). Three measurement items for telepresence were adapted from Lee and Park (2014). Consumer trust was measured on the four-item scale constructed by Sun *et al.* (2019), while flow state was

Measure	Items	Frequency	(%)
Gender	Male	163	40.25
	Female	242	59.75
Age	Under 18	7	1.73
	18–25	199	49.14
	26–35	163	40.25
	36–45	30	7.41
	over 45	6	1.48
Education	High school or below	11	2.72
	College	187	46.17
	Bachelors	171	42.22
	Masters or above	36	8.89
Occupation	Student	50	12.35
	Office staff	291	71.85
	Self-employed	59	14.57
	Others	5	1.23
Income(RMB/month)	Less than 2000	46	11.36
	2000–4000	166	40.99
	4001–8000	105	25.93
	8001–12000	59	14.57
	Over 12000	29	7.16
Frequency of purchase in live streaming	More than once a month	228	56.3
	Once every 1–3 months	129	31.85
	Once every 4–6 months	44	10.86
	Once more than half year	4	0.99

Table 1.
Demographics of
respondents
(N = 405)

measured on the six-item scale established by Koufaris (2002). Four items for the personal sense of power were developed from Anderson *et al.* (2012), and four items for impulsive buying behavior were adapted from Verplanken and Herabadi (2001). All the items were measured by a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree).

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4.5 Data analysis and procedure

This study used the Statistical Packages for Social Science (SPSS) 22.0 version and AMOS 22.0 version to analyze all the measurement items, containing six exogenous variables (i.e. social presence of live streaming, social presence of viewers, social presence of streamers, telepresence, consumer trust, and flow state), one moderator (i.e. personal sense of power), and one endogenous variable (i.e. impulsive buying behavior).

The confirmatory factor analysis (CFA) was first used to organize all the sets of observed variables for testing the hypotheses, internal reliability, validity and structure model. When conducting CFA, items with factor loadings under 0.5 were eliminated, and covariance paths between error items in each factor were added to enhance the model's fitness. The elimination was conducted with the following rules: on the one hand, the standardized loadings must be less than 0.5; on the other hand, the number of items removed cannot exceed 20% of the items with a single factor (Hair *et al.*, 2010). Finally, all CFA values were suitable and met the threshold value: CMIN/df 2.42 ($p < 0.001$), TLI 0.859, GFI 0.976, AGFI 0.919, CFI 0.921, SRMR 0.059, RMSEA 0.057.

4.6 Convergent and discriminant validity

As for convergent validity, the study tested internal consistency reliability, which must be over 0.70; composite reliability, which must be over 0.07; and average variance extraction (AVE), which must be over 0.5 (Hair *et al.*, 2010). As presented in Table 2, the results show that all factor loadings of reliability and convergent validity are above 0.7 for all measurement items. Composite reliability (CR) and Cronbach's alpha score values are all above 0.7, proving excellent scale reliability for the entire constructs. The average extracted variance (AVE) values are all greater than 0.5 (Fornell and Larcker, 1981), indicating the best convergent validity.

The Heterotrait–monotrait ratios of correlations (HTMT) are used to check to discriminant validity. HTMT was put forward by Henseler *et al.* (2015) to better detect discriminant validity in research. The threshold of 0.85 implies whether discriminant validity is constructed; that is, the value of HTMT should be below 0.85; otherwise, discriminant validity is lacking between two reflective factors (Kline, 2015). Table 3 displays the values of HTMT, and the results reflect that good discriminant validity is established.

Table 2.
Reliability and
convergent validity

Key variables	Items	Means	SD	Item loading	CR	AVE	Cronbach's
Social presence of live streaming platform	5	4.12	1.31	0.74–0.82	0.92	0.69	0.93
Social presence of viewers	3	4.31	1.24	0.79–0.85	0.85	0.65	0.87
Social presence of streamers	3	3.21	1.36	0.82–0.84	0.82	0.75	0.91
Telepresence	3	4.44	1.29	0.79–0.89	0.91	0.78	0.85
Consumers trust	4	3.71	1.32	0.81–0.89	0.86	0.64	0.93
Flow state	6	3.43	1.45	0.84–0.91	0.94	0.74	0.89
Impulse buying behavior	4	4.17	1.52	0.86–0.93	0.87	0.79	0.94
Personal Sense of Powers	4	4.27	1.72	0.81–0.86	0.89	0.71	0.97

5. Results of proposed hypotheses

This study tested the hypotheses by running the structural equation modeling (SEM). All values of the SEM analysis showed a good fit (CMIN/df 2246.91, df 839, $p < 0.001$, CFI 0.899, TLI 0.97, GFI 0.85, RMSEA 0.07, SRMR 0.05). All hypotheses have been supported, as displayed in Table 4. H1a, b Social presence of live streaming significantly influenced consumers' trust and flow state with coefficient values, a (0.552, $p < 0.001$), b (0.321, $p < 0.001$). The result shows that the Social presence of live streaming develops consumer trust and flow state, hence supporting H1a and H1b. Social presence of viewers significantly influenced consumers trust and flow state with coefficient values (0.289, $p < 0.005$), (0.329, $p < 0.001$). The result represents that live streaming viewers' social presence enhances the consumers' trust and flow state, hence supporting H2a and H2b. Social presence of streamers significantly influenced the consumer trust and flow state with coefficient values (0.375, $p < 0.001$), (0.198, $p < 0.005$). The result shows that streamers' social presence enhances the consumers' trust and flow state, hence, supporting H3a and H3b. Telepresence significantly influenced the consumers trust and flow state with coefficient values (0.276, $p < 0.001$), (0.221, $p < 0.005$). The result shows that telepresence develops consumers' trust and flow state, supporting H4a and H4b. Consumer trust significantly influenced flow state with coefficient values (0.332, $p < 0.001$). The result shows that consumers' trust increases the flow state, hence supporting H5. Consumer trust significantly

Key variables	1	2	3	4	5	6	7	8
(1) Social presence of live streaming platform	–							
(2) Social presence of viewers	0.432	–						
(3) Social presence of streamers	0.532	0.421	–					
(4) Telepresence	0.467	0.342	0.339	–				
(5) Consumers trust	0.329	0.454	0.441	0.424	–			
(6) Flow state	0.379	0.457	0.487	0.389	0.412	–		
(7) Impulse buying behavior	0.425	0.479	0.478	0.497	0.374	0.391	–	
(8) Personal sense of powers	0.424	0.468	0.449	0.491	0.491	0.497	0.424	–

Table 3.
Discriminant validity
(heterotrait-
monotrait method)

H	Relationship	Estimates	SE	CR
H1a	Social presence of live streaming platform → consumer trust	0.552	4.59	3.12***
H1b	Social presence of live streaming platform → Flow state	0.321	0.239	3.84***
H2a	Social presence of viewers → consumer trust	0.289	0.167	2.71**
H2b	Social presence of viewers → Flow state	0.329	0.357	2.54***
H3a	Social presence of streamers → consumer trust	0.375	0.257	2.28***
H3b	Social presence of streamers → Flow state	0.198	0.345	2.36**
H4a	Telepresence → consumer trust	0.276	0.241	3.43***
H4b	Telepresence → Flow state	0.221	0.129	3.31**
H5	Consumer trust → Flow state	0.332	0.175	2.68***
H6	Consumer trust → impulse buying behavior	0.179	0.434	3.23***
H7	Flow state → Impulse buying behavior	0.323	0.391	4.14**
<i>Moderating effect</i>				
H8	Flow state * Personal sense of power → Impulse Buying behavior	0.509	0.127	2.17***
H9	Consumer Trust * Personal sense of power → Impulse Buying behavior	0.613	0.169	1.96***

Notes: SE, standard error; CR, critical ratio. ** p -value < 0.01 ; *** p -value < 0.001

Table 4.
SEM Direct and
indirect relationship
(moderation)

influenced impulsive buying behavior with coefficient values (0.179, $p < 0.001$). The result shows that consumers' trust develops impulsive buying behavior, hence, supporting *H6*. Flow state significantly influenced the impulsive buying behavior with coefficient values (0.323, $p < 0.005$). The result shows that flow state develops impulsive buying behavior, hence supporting *H7*.

As shown in Table 4, the personal sense of power moderates the relationship between consumer trust, flow state, and impulsive buying behavior. SEM was used to organize the moderating effects. The personal sense of power significantly moderates the relationship between consumers' trust and impulsive buying behavior with coefficient values 0.509, $p < 0.001$. Based on the coefficient's positive value, the personal sense of power has strengthened the relationship between consumer trust and impulsive buying behavior. Hence, *H8* was supported. As expected, the personal sense of power moderates the relationship between flow state and impulsive buying behavior with coefficient values (0.613, $p < 0.001$), showing support for *H9*. The result shows a positive value of the coefficient that the personal sense of power strengthened the relationship between flow state and impulsive buying behavior.

6. Theoretical implications

This study has several significant theoretical implications. First, this study extends the literature on live streaming commerce by exploring how impulsive buying behavior is induced. Previous studies have focused on consumers' motivations in live streaming on the bases of gratification theory, technological-related motivations or consumers' behavior in live streaming such as purchasing, interacting, and recommending (Cai *et al.*, 2018; Wang and Wu, 2019). However, few studies have delved into impulsive buying behavior in live streaming commerce. Accordingly, the current study enriches live streaming commerce literature.

Second, this study extends the theoretical understanding of presence by investigating the role of presence that intensely plays in live streaming commerce. The majority of extant studies only generally examine presence or investigate one or two forms of presence (Lu *et al.*, 2016; Algharabat *et al.*, 2018; Gao *et al.*, 2018). However, this study divides presence into four groups, that is, the social presence of live streaming platform, of viewers, of streamers, and telepresence and analyzes how they separately affect impulsive buying. Furthermore, this study examines the influence that the four types of presence exert on consumer trust and flow state, thus affecting consumers' impulsive buying behavior. Few studies have examined the mediating role of consumer trust and flow state in the relationship between presence and impulsive buying behavior. Therefore, this study contributes to the extant literature on presence in live streaming commerce.

Third, our study extends research on the formation mechanism of impulsive buying behavior in live streaming commerce by exploring consumers' sense of power as a moderator. The decision-making process of consumers is affected by consumers' personal traits and the impulsive behavior is easily influenced by personal sense of power (Atulkar and Kesari, 2018). However, research on how personal sense of power influences impulsive buying behavior is still inadequate. Therefore, this study enriches the existing literature on how impulsive buying is affected by consumers' personal traits.

7. Managerial implications

The findings of this study have several notable implications for live streamers and e-retailers. First, the empirical research proves that four types of presence exert important influences on live streaming commerce. The sense of presence can be produced through real-time interactions as the latter can reduce the physical and psychological separation among

live streamers, viewers, and products (Wang and Wu, 2019). Live streaming commerce owns the advantage of high interactivity over traditional e-commerce. Therefore, to benefit from such distinction, live streamers are expected to offer viewers an active atmosphere and raise viewers' willingness to interact with them. For e-retailers, they should select live streamers with a good appearance, brilliant salesmanship, and good communication skills to help sell goods.

Second, the findings show that flow state and consumer trust positively affects impulsive buying behavior. If a live stream is interesting and trustworthy, viewers are more likely to focus on it with satisfaction, thus possibly leading to impulsive purchase. E-retailers and live streamers should select beautiful background music, exciting pictures, funny videos and humanized interactive design to ensure that consumers feel at ease and relaxed when they shop via live streaming. In the meanwhile, live streamers should promote products with honest and e-retailers should provide products with high quality to enhance consumers' trust.

Third, the findings suggest that an increase in the sense of power among consumers strengthens their likelihood of experiencing positive feelings, which may stimulate them to purchase impulsively. Therefore, live streamers should interact with viewers in a friendly and warm way to build a good relationship with them and offer more initiative to viewers in live streams to make consumers perceive higher sense of power.

Fourth, live streaming commerce develops well in China, but it is still in the early stage in lots of developing and developed countries. Those countries should highlight the importance of live streaming commerce and apply new technologies to offer better sense of presence to consumers to trigger their buying intentions.

8. Limitations and future research

This study has some limitations, which also suggest directions for future research. First, live streaming commerce has two categories. One refers to e-commerce sites or applications with live streaming features, and the other refers to social networking platforms with commercial activities. However, this study only investigates live streaming commerce, generally without differentiating and comparing the two groups. Therefore, future studies can analyze how presence separately plays a role in the two categories of live streaming commerce. Second, a slight difference exists between impulsive buying behavior and impulsive buying intention. Impulsive purchase intention does not necessarily lead to impulsive buying behavior, as some other factors such as psychological factors influence the process. Nevertheless, this study does not examine the difference between the two parts nor views them differently. Therefore, future studies can examine how impulsive buying intention turns into real buying behavior. Third, as all the respondents are limited to Chinese consumers, the findings in this study may not suit other countries, because of cultural differences. Therefore, future studies can extend the extant literature by exploring live streaming commerce in other cultural contexts.

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Further reading

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Appendix. Questionnaire

Part 1 screen questions

Have you ever watched live streaming in websites or applications such as Taobao.com, JD.com, Pingduoduo.com, mogujie.com, Tik Tok, Kwai and so on?

Yes

No

Skip to: end of survey if the answer of this question is no.

Have you ever bought product that live streamers sell in live streams?

Yes

No

Skip to: end of survey if the answer of this question is no.

Part 2 demographic information

What is your gender (☐male; ☐18–25 female).

What is your age (☐Under 18; ☐18–25; ☐26–35; ☐36–45; ☐over 45)

What is your education level (☐High school or below; ☐College; ☐Bachelors; ☐36–45; ☐Masters or above)

What is your occupation (☐student; ☐office staff; ☐self-employed; ☐others).

What is your income level (RMB/month) (☐Less than 2000; ☐2000–4000; ☐4001–8000; ☐8001–12000; ☐Over 12000)

How many times do you shop in live streams (☐More than once a month; ☐Once every 1–3 months; ☐Once every 4–6 months; ☐Once more than half year)

Part 3 self-report items

Social presence of live streaming platform:

1 There is a sense of human contact in live streaming platform.

2 There is a sense of personalness in live streaming platform.

3 There is a sense of sociability in live streaming platform.

4 There is a sense of human warmth in live streaming platform.

5 There is a sense of human sensitivity in live streaming platform.

Social presence of viewers:

1 I am aware of other viewers in the live stream who are interested with the product.

2 I am aware of other viewers in the live stream who share information regarding the product.

3 I am aware of other viewers in the live stream who have purchased the product.

Social presence of streamers:

1 I can make sense of the attitude of the streamers by interacting with them via live streaming.

2 There is a sense of human touch when communicating with the streamers via the live streaming.

3 Communication with the sellers via the streamers via the live streaming is warm.

Telepresence

1 When watching live streaming, I felt that as if I was shopping in a brick-and-mortar store.

2 When watching live streaming, I felt that I was more in the "computer world" than the "real world" around me.

3 When watching e live streaming, although my body was in the room, I felt that my mind was inside the world created by live streamers.

Consumer trust:

1 I believe in the information that streamers provide through live streaming.

2 I believe live streamers in live streaming are trustworthy.

3 I do not think that streamers would take advantage of me.

4 I trust that the products I receive will be the same as those shown on live streaming.

Flow state:

(Concentration)

1 When watching e-commerce live streaming, I didn't want to take my eyes off the live.

2 When watching e-commerce live streaming, I overlooked what was going on around me.

3 When watching e-commerce live streaming, I forgot what I had to do.

(Shopping enjoyment)

4 When watching e-commerce live streaming, I found it enjoyable.

5 When watching e-commerce live streaming, I found it interesting.

6 When watching e-commerce live streaming, I found it fun.

The personal sense of power:

1 I can get him/her/them to listen to what I say.

2 My ideas and opinions are often valued.

3 If I voice them, my views have much sway.

4 If I want to, I get to make the decisions.

Impulsive buying behavior:

1 When watching live streaming, I find it difficult to pass up a bargain.

2 When watching live streaming, I am a bit reckless in buying products.

3 When watching live streaming, I buy products displayed by live streamers spontaneously even though I don't need them.

4 When watching live streaming, I sometimes can't suppress the feeling of desiring to buy products.

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