



Direktorat Riset dan Pengabdian Masyarakat Direktorat Jenderal Riset dan Pengembangan
Kementerian Riset, Teknologi, dan Pendidikan Tinggi

Gedung BPPT II Lantai 19, Jl. MH. Thamrin No. 8 Jakarta Pusat
<http://simlitabmas.ristekdikti.go.id/>

PROTEKSI ISI PROPOSAL

Dilarang menyalin, menyimpan, memperbanyak sebagian atau seluruh isi proposal ini dalam bentuk apapun kecuali oleh pengusul dan pengelola administrasi penelitian

PROPOSAL PENELITIAN 2019

ID Proposal: 259ec5b8-85da-4ed5-949a-457be868d105
Rencana Pelaksanaan Penelitian: tahun 2020 s.d. tahun 2021

1. JUDUL PENELITIAN

Prediksi Perilaku Pembelian Impulsif Pelanggan dengan Menggunakan Teknik Machine Learning Big Data (Big Data Predictive Analytic for Customers Impulsive Buying Behavior using Machine Learning Technique)

Bidang Fokus RIRN / Bidang Unggulan Perguruan Tinggi	Tema	Topik (jika ada)	Rumpun Bidang Ilmu
Teknologi Informasi dan Komunikasi	Teknologi untuk Peningkatan Konten TIK	Pengembangan teknologi big data	Teknologi Informasi

Kategori (Kompetitif Nasional/ Desentralisasi/ Penugasan)	Skema Penelitian	Strata (Dasar/ Terapan/ Pengembangan)	SBK (Dasar, Terapan, Pengembangan)	Target Akhir TKT	Lama Penelitian (Tahun)
Penelitian Kompetitif Nasional	Penelitian Dasar	SBK Riset Dasar	SBK Riset Dasar	3	2

2. IDENTITAS PENGUSUL

Nama, Peran	Perguruan Tinggi/ Institusi	Program Studi/ Bagian	Bidang Tugas	ID Sinta	H-Index
INDRAWATI Ketua Pengusul	Universitas Telkom	Manajemen		257848	3
Dr Ir GADANG RAMANTOKO Anggota Pengusul 1	Universitas Telkom	Manajemen	Melakukan Pengambilan dan analisis Data	0	0
Dr. Izzatdin Abdul Aziz Anggota Pengusul 2	Universiti Teknologi Petronas	-	Melakukan pengumpulan data di wilayah Malaysia, membantu analisis dan sintesa data.	0	0

3. MITRA KERJASAMA PENELITIAN (JIKA ADA)

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

Mitra	Nama Mitra
Mitra Pelaksana Penelitian	Dr. Izzatdin B A Aziz
Mitra Pelaksana Penelitian	Dr. Hsing-Kuo Wang

4. LUARAN DAN TARGET CAPAIAN

Luaran Wajib

Tahun Luaran	Jenis Luaran	Status target capaian (<i>accepted, published, terdaftar atau granted, atau status lainnya</i>)	Keterangan (<i>url dan nama jurnal, penerbit, url paten, keterangan sejenis lainnya</i>)
1	Artikel pada Conference/Seminar Internasional di Pengindeks Bereputasi	Terbit dalam Prosiding	CoMDITE
1	Artikel pada Conference/Seminar Internasional di Pengindeks Bereputasi	Terbit dalam Prosiding	ISCLLO
1	Artikel pada Conference/Seminar Internasional di Pengindeks Bereputasi	Terbit dalam Prosiding	SCBTII
2	Artikel di Jurnal Internasional Terindeks di Pengindeks Bereputasi	Accepted	Journal of Advanced Research in Dynamical and Control Systems

Luaran Tambahan

Tahun Luaran	Jenis Luaran	Status target capaian (<i>accepted, published, terdaftar atau granted, atau status lainnya</i>)	Keterangan (<i>url dan nama jurnal, penerbit, url paten, keterangan sejenis lainnya</i>)
1	Artikel pada Conference/Seminar Internasional di Pengindeks Bereputasi	Terbit dalam Prosiding	CoMDITE
2	Buku Ajar	Terbit ber ISBN	Refika Aditama

5. ANGGARAN

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

Total RAB 2 Tahun Rp. 198,350,000

Tahun 1 Total Rp. 98,400,000

Jenis Pembelanjaan	Komponen	Item	Satuan	Vol.	Biaya Satuan	Total
Bahan	ATK	Kertas, tinta printer, pulpen	1	4	400,000	1,600,000

Jenis Pembelanjaan	Komponen	Item	Satuan	Vol.	Biaya Satuan	Total
Bahan	Bahan Penelitian (Habis Pakai)	1	1	100	100,000	10,000,000
Bahan	Barang Persediaan	1	1	125	25,000	3,125,000
Pengumpulan Data	FGD persiapan penelitian	2	1	10	150,000	1,500,000
Pengumpulan Data	Transport	1	1	30	170,000	5,100,000
Pengumpulan Data	Penginapan	1	2	4	500,000	2,000,000
Pengumpulan Data	Biaya konsumsi	1	1	125	25,000	3,125,000
Sewa Peralatan	Peralatan penelitian	2	2	20	1,500,000	30,000,000
Sewa Peralatan	Obyek penelitian	1	1	60	100,000	6,000,000
Sewa Peralatan	Ruang penunjang penelitian	2	1	4	3,000,000	12,000,000
Analisis Data	Transport Lokal	1	1	10	170,000	1,700,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Biaya seminar internasional	1	1	1	2,850,000	2,850,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Publikasi artikel di Jurnal Internasional	1	1	1	10,000,000	10,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Luaran KI (paten, hak cipta dll)	1	1	1	400,000	400,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Biaya penyusunan buku termasuk book chapter	1	1	1	9,000,000	9,000,000

Tahun 2 Total Rp. 99,950,000

Jenis Pembelanjaan	Komponen	Item	Satuan	Vol.	Biaya Satuan	Total
Bahan	ATK	4	1	4	300,000	1,200,000
Bahan	Bahan Penelitian (Habis Pakai)	External Hardisk	1	1	850,000	850,000
Pengumpulan Data	FGD persiapan penelitian	1	3	10	200,000	2,000,000
Pengumpulan Data	Transport	1	3	3	500,000	1,500,000
Pengumpulan Data	Transport	2	1	6	750,000	4,500,000
Pengumpulan Data	Penginapan	2	3	3	750,000	2,250,000
Pengumpulan Data	Biaya konsumsi	1	1	30	50,000	1,500,000
Sewa Peralatan	Peralatan penelitian	Sewa komputer	1	2	10,000,000	20,000,000
Sewa Peralatan	Peralatan penelitian	Sewa alat perekam gambar	1	2	10,000,000	20,000,000

Jenis Pembelanjaan	Komponen	Item	Satuan	Vol.	Biaya Satuan	Total
Sewa Peralatan	Transport penelitian	Transfort pengambilan data	1	20	170,000	3,400,000
Analisis Data	Transport Lokal	Transfort peneliti	3	10	170,000	1,700,000
Analisis Data	Biaya konsumsi rapat	Konsumsi rapat	10	3	50,000	150,000
Analisis Data	Biaya konsumsi rapat	1	2	10	50,000	500,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Biaya konsumsi rapat	Rapat Finalisasi Laporan	2	20	50,000	1,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Biaya seminar internasional	Biaya seminar CoMDITE	1	3	3,000,000	9,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Publikasi artikel di Jurnal Internasional	Biaya Publikasi di Jurnal	1	2	10,000,000	20,000,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Luaran KI (paten, hak cipta dll)	Hak Cipta	1	1	400,000	400,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Biaya penyusunan buku termasuk book chapter	Penerbitan buku	1	1	10,000,000	10,000,000

Ringkasan penelitian tidak lebih dari 500 kata yang berisi latar belakang penelitian, tujuan dan tahapan metode penelitian, luaran yang ditargetkan, serta uraian TKT penelitian yang diusulkan.

RINGKASAN

Analisis prediktif merupakan penggunaan data, algoritma statistik, dan *machine learning* untuk memprediksi kemungkinan hasil masa depan berdasarkan histori data, dengan memanfaatkan kemajuan teknologi dan komputasi, kemudahan akses data, serta ketersediaan *software*. Pada beberapa tahun terakhir ini analisis prediktif diadopsi penggunaannya dalam bidang pemasaran. Kemajuan komputasi dan teknologi yang mampu memprediksi kecenderungan pelanggan dan pasar telah menjadi alat penentuan strategi penting dalam bisnis modern. Hal ini dilihat dari beberapa penelitian yang fokus pada pengembangan strategi yang berbeda untuk menganalisis tren pasar dan sentimen pelanggan pada merek, produk atau layanan. Namun, literatur saat ini masih belum dapat menyarankan teknik yang cocok untuk memprediksi tren pasar saat ini dan kecenderungan pasar dengan akurasi yang diinginkan.

Proposal ini bertujuan untuk memprediksi teknik analisis pasar terintegrasi yang canggih yang mencakup pengelolaan data untuk menyaring data historis terkait dari basis data dan teknik *machine learning*. Penelitian ini akan melatih *machine* atau sistem dengan data yang difilter yang dapat memprediksi kecenderungan pasar, kecenderungan pelanggan, dan terutama untuk memahami perilaku pembelian impulsif pelanggan melalui analisa dengan akurasi yang diinginkan dengan menggunakan algoritma *backpropagation* sebagai alat kecerdasan buatan. Kinerja teknik integrasi yang diusulkan akan ditentukan dengan menghitung nilai-nilai regresi dan membandingkannya dengan metode lain yang ada.

Kata kunci maksimal 5 kata

Machine learning, buying behavior, predictive analytics; market trends; Big Data

Latar belakang penelitian tidak lebih dari 500 kata yang berisi latar belakang dan permasalahan yang akan diteliti, tujuan khusus, dan urgensi penelitian. Pada bagian ini perlu dijelaskan uraian tentang spesifikasi khusus terkait dengan skema.

LATAR BELAKANG

Analisis *customer lifecycle* saat ini menunjukkan peningkatan *customer value* yang harus diperhatikan oleh perusahaan. Saat ini penilaian digital yang dilakukan pelanggan memiliki peranan penting dalam komunikasi antar pelanggan dan dapat mempengaruhi pembelian pelanggan lain. Perusahaan *e-commerce* seperti Amazon, Alibaba, Bukalapak, Tokopedia dan lainnya memberikan tempat pada pelanggan untuk berbagi pengetahuan dan wawasan yang nyata mengenai kinerja produk yang bisa diakses oleh pembeli dimasa depan. Pada saat yang sama, kemudahan akses informasi dan kemajuan pemrosesan data membuka peluang untuk menciptakan teknik untuk mendukung pengambilan keputusan dengan tujuan finansial dan ekonomi. Dengan kemajuan komputasi dan teknologi, sejumlah penelitian telah dilakukan untuk menganalisis tren pasar dan sentimen pelanggan. Melalui data historis menggunakan teknik *machine learning* dan *data mining* yang berbeda, tren pasar dan konsumen telah dicoba dianalisis, berbagai teknik kecerdasan buatan digunakan lebih lanjut untuk menyelesaikan masalah terkait prediksi pasar. Namun, upaya ini gagal mencapai tingkat akurasi yang diinginkan.

Di Indonesia, Malaysia, dan Taiwan tingkat pembelian konsumen untuk *fast-moving consumer goods* (FMCG) melemah karena banyak faktor seperti pertumbuhan pendapatan riil yang rendah, kenaikan harga, perlambatan ekonomi global. Di Indonesia pertumbuhan nilai FMCG dan pertumbuhan volume FMCG per unit dari tahun 2015 - 2017 menunjukkan perlambatan [1]. Nielson juga melaporkan bahwa sektor FMCG di Malaysia sampai Juni 2017 menunjukkan penurunan 2,2%. Dalam pasar yang melambat ini, proses mencapai konsumen yang tepat sangatlah penting, agar produk yang ditawarkan tepat waktu dan harga. FMCG biasanya sampai kepada konsumen dengan variasi dan inovasi yang tinggi sehingga karakter

pasar FMCG sangat kompetitif, setiap perusahaan wajib berupaya memotivasi dan mendorong konsumen untuk membeli produk mereka. Upaya perusahaan mendorong konsumen menggunakan produknya harus menjadi program utama pada kondisi pasar yang melemah.

Teknik terpadu konseptual umum dapat diformulasikan untuk memprediksi tren pasar secara akurat serta memeriksa sentimen pelanggan menggunakan teknik *artificial intelligence* dan teknik *machine learning* yang efektif dan efisien. Input data historis yang paling tepat, untuk melatih sistem akan disiapkan menggunakan teknik *data mining-data wrangling*, agar data dapat diolah dengan baik. Tujuan utama dari penelitian ini adalah untuk merumuskan teknik terpadu konseptual umum yang dioperasikan menggunakan analisis *big data* dan strategi *machine learning* serta sistem cerdas untuk prediksi tren pasar dengan akurat, dan melakukan sentimen pelanggan terkait produk FMCG di Indonesia, Malaysia dan Taiwan. Secara khusus penelitian ini mengintegrasikan mekanisme pada sistem yang diajukan dengan pengelahan data yang difilter untuk menghasilkan keputusan cerdas selama analisis berlangsung dan memprediksi perilaku pembelian yang impulsif (*impulsive buying behavior*) pelanggan. Melalui eksplorasi teori model stimulus dan respon konsumen pada model AIDA, prediksi *online buying behavior intention* akan diteliti selama 2 tahun menggunakan *image processing – face recognition – facial expression* pada 30 responden fokus pada tahap *attention*, selanjutnya membangun model *machine learning* untuk prediksi berdasarkan *facial expression* serta mengkonfirmasinya melalui 60 responden untuk meningkatkan akurasi yang diinginkan dan fokus pada tahap *interest*. Pada tahun ke-2 penelitian dilanjutkan meneliti bagaimana meningkatkan level respon dari *Attention* ke *Interest “the enjoyment emotion”*, stimulus dipersonalisasi untuk meningkatkan ekspresi *enjoyment* untuk mendorong konsumen melakukan aktivitas klik pada pembelian web online akan diteliti dan menghasilkan mesin untuk memprediksi *intention* dari ekspresi wajah dan program personalisasi stimulus yang akurat.

Tinjauan pustaka tidak lebih dari 1000 kata dengan mengemukakan *state of the art* dan peta jalan (*road map*) dalam bidang yang diteliti. Bagan dan *road map* dibuat dalam bentuk JPG/PNG yang kemudian disisipkan dalam isian ini. Sumber pustaka/referensi primer yang relevan dan dengan mengutamakan hasil penelitian pada jurnal ilmiah dan/atau paten yang terkini. Disarankan penggunaan sumber pustaka 10 tahun terakhir.

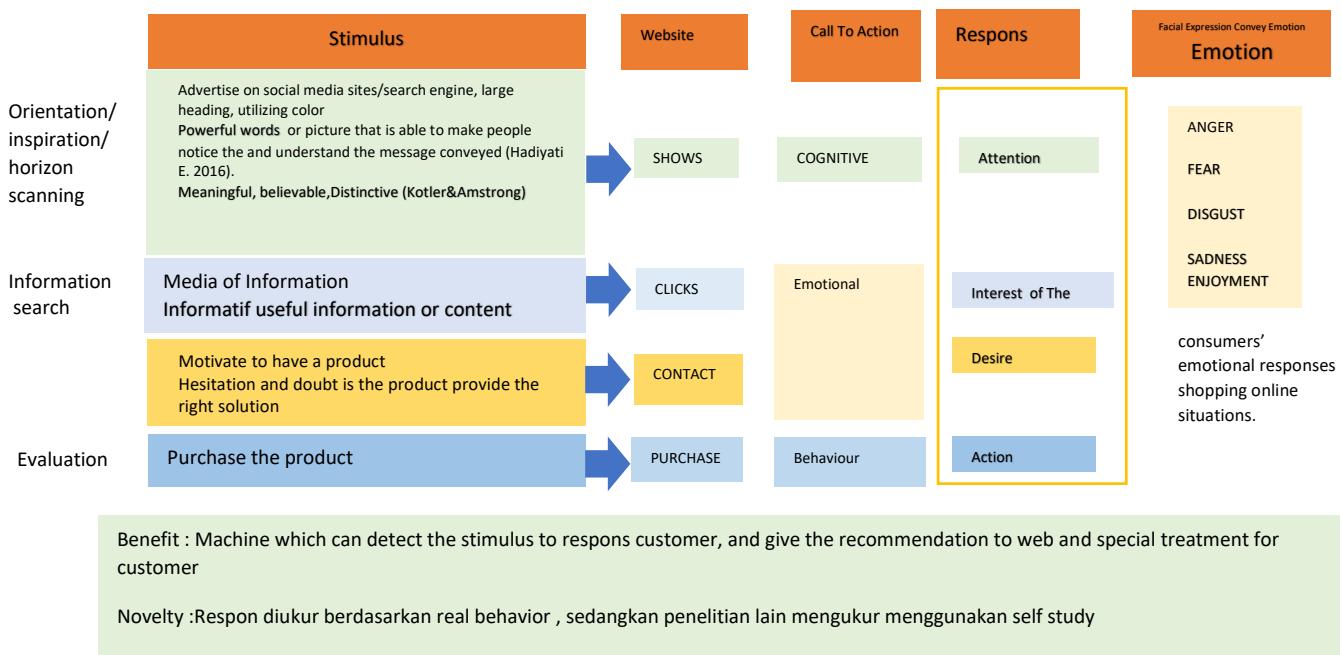
TINJAUAN PUSTAKA

Memahami segmentasi pasar adalah aspek penting bagi organisasi bisnis untuk bertahan di lingkungan yang kompetitif. Pendekatan tradisional mengandalkan metodologi pengambilan sampel untuk mengumpulkan sifat-sifat demografis dan spesifik lainnya dari segmen pasar dianggap mahal dan memakan waktu. Kebutuhan pengambilan keputusan secara real-time memaksa perusahaan untuk mengadopsi pendekatan baru, memanfaatkan Big Data. Difusi smartphone, komputer tablet, dan peralatan multiguna lainnya dengan akses internet kecepatan tinggi menciptakan data besar dengan tipe data baru yang tersedia untuk analisis data dan klasifikasi dalam pemasaran. Saat ini sangat memungkinkan untuk mengumpulkan gambar / jepretan, musik, atau video. Namun, ada kesenjangan antara algoritma *software* yang mencoba untuk mengeksplorasi kekuatan *image analytics* dalam kegunaannya di bidang pemasaran. Banyak aplikasi *image analytics*, menyebar dari teknologi luar angkasa (pemrosesan citra secara massif) pertama kali ditemukan pemanfaatannya, untuk investigasi kejahatan (profil kriminal) dan sekarang dapat diterapkan pada profil dan perilaku pelanggan

[2] dan [3] menyebutkan salah satu perilaku pembelian adalah pembelian impulsif, yang seharusnya lebih efektif untuk produk FMCG dalam pasar yang lambat, karena hal itu memungkinkan pelanggan untuk menyerah pada godaan dan membeli sesuatu tanpa mempertimbangkan konsekuensi dari pembelian. Kecenderungan pembelian impulsif melibatkan item kognitif dan afektif. Item aktivitas kognitif terdiri dari, berpikir, berniat, spontan, rencana, kebutuhan, gaya, di lokasi, seberapa sering. Item afektif terdiri dari pergulatan, perasaan, bersalah, cinta, suka, penuh gairah, baik, sulit, ceroboh, kebiasaan. Pemasar telah memanfaatkan fenomena ini untuk meningkatkan penjualan di seluruh dunia. Pembelian impulsif dalam praktiknya dapat mempengaruhi produk reguler maupun produk baru [4]. Temuannya adalah bahwa pengetahuan produk baru dan keinginan konsumen untuk kegembiraan dan harga diri mendorong niat dan perilaku pembelian impulsif. Pembelian impulsif telah menjadi salah satu dari beberapa trik pemasar untuk

menghadapi perilaku pelanggan. Salah satu model adalah "Hawkins Stern Impulse Buying" [5]. Di Amerika Serikat saja, konsumen membelanjakan hingga \$ 5.400 per tahun untuk pembelian impulsif [6]. Top 5 pembelian impuls yang paling umum adalah makanan / bahan makanan (71%), pakaian (53%), rumah tangga (33%), *takeout* (29%) dan sepatu (28%). Sangat menarik untuk menyelidiki item di luar 5 besar tersebut.

Perilaku pembelian impulsif harus diidentifikasi dan diketahui dalam data *real-time*, tidak terlalu banyak penundaan. Pengambilan keputusan *real-time* sangat penting, karena waktu untuk memasarkan produk sangat penting. Pendekatan tradisional mengandalkan metodologi pengambilan sampel untuk mengumpulkan sifat-sifat demografis dan spesifik lainnya dari segmen pasar dianggap mahal dan memakan waktu. Kebutuhan pengambilan keputusan secara *real-time* memaksa perusahaan untuk mengadopsi pendekatan baru, yang memanfaatkan data besar. Terlebih lagi, difusi smartphone, komputer tablet, dan peralatan multiguna lainnya dengan akses internet kecepatan tinggi menciptakan data besar dengan tipe data baru yang tersedia untuk analisis data dan klasifikasi dalam pemasaran. Seperti yang ditunjukkan pada Gambar 1, bahwa stimulus yang diberikan ke pelanggan saat ini banyak yang dilakukan secara digital yang tentu saja action yang diharapkan juga akan terjadi secara digital baik secara cognitive, emotional, maupun behavior. Respon konsumen berbentuk emosi akan dapat diprediksi dengan menggunakan mesin. Karena emosi konsumen ini sangat cepat, banyak, dan berubah-ubah serta harus diketahui secara real time maka diperlukan suatu mesin yang senantiasa belajar (machine learning) mengikuti perubahan emosi sehingga akan terjadi pola tertentu yang dapat mendeteksi emosi pelanggan apakah pelanggan sedang anger, fear, disgust, sad, enjoy. Mesin yang tercipta akan dapat dipakai mendeteksi keberhasilan suatu stimulus yang dilakukan perusahaan FMCG apakah stimulus tersebut menimbulkan emosi positif atau emosi negative, yang pada akhirnya akan membantu perusahaan melakukan kegiatan pemasaran yang sangat individual dan real time sesuai dengan tuntutan pemasaran di era 4.0 [7].

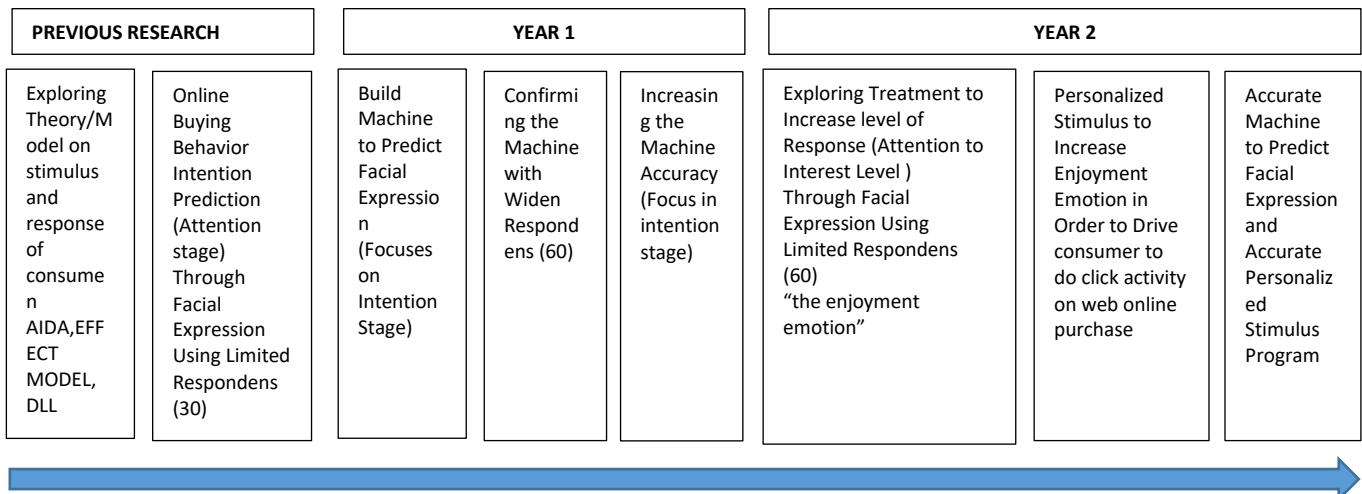


Gambar 1 Stimulus dan Respon Digital Berdasarkan AIDA

Sekarang dimungkinkan untuk mengumpulkan gambar / jepretan, musik, atau video yang sangat bermanfaat untuk pengambilan keputusan. Namun, ada kesenjangan antara algoritma perangkat lunak yang mencoba untuk mengeksplorasi kekuatan analitik gambar untuk praktik pemasaran.

Pendekatan populer untuk analisis sentimen didasarkan pada teknik pembelajaran mesin, teknik analisis semantik, teknik statistik, dan teknik kamus berbasis leksikon. Pada saat yang sama, data mining (DM), kadang-kadang dibahas sebagai *knowledge discovery in database* (KDD), adalah pendekatan sistematis untuk menemukan pola dasar, kecenderungan, dan asosiasi yang tersembunyi dalam data. *Data mining* telah menarik perhatian para peneliti dan praktisi karena aplikasi yang luas dalam keputusan bisnis penting. Pada penelitian ini akan dibahas beberapa teknik penting yang ada dalam hal kekuatan dan

kelemahan mereka yang terkait dengan prediksi pasar atau analisis pelanggan dengan menggunakan teknik pembelajaran mesin yang berbeda, kecerdasan buatan atau teknik pengelolaan data. Adapun road map penelitian seperti ditampilkan Gambar 2.



Gambar 2 Road Map Penelitian

Penelitian tahun ke 1 dan ke 2 yang akan dilakukan adalah kelanjutan penelitian sebelumnya yang telah dilakukan tim ini dengan pihak Universiti Teknologi PETRONAS, yaitu mulai eksplorasi model dan teori sampai membuat mesin yang dapat dilatih untuk mengidentifikasi ekspresi konsumen, namun masih dalam skup yang sangat terbatas yaitu 30 orang. Hasil dari penelitian menunjukkan bahwa suatu formulasi sudah dapat membentuk mesin yang dapat mengidentifikasi emosi responden. Hasil ini sudah dipublikasikan di seminar internasional yang terindeks scopus [8].

Metode atau cara untuk mencapai tujuan yang telah ditetapkan ditulis tidak melebihi 600 kata. Bagian ini dilengkapi dengan diagram alir penelitian yang menggambarkan apa yang sudah dilaksanakan dan yang akan dikerjakan selama waktu yang diusulkan. Format diagram alir dapat berupa file JPG/PNG. Bagan penelitian harus dibuat secara utuh dengan penahapan yang jelas, mulai dari awal bagaimana proses dan luarannya, dan indikator capaian yang ditargetkan. Di bagian ini harus juga mengisi tugas masing-masing anggota pengusul sesuai tahapan penelitian yang diusulkan.

METODE

Karena sifat dari penelitian ini adalah menggabungkan perilaku manusia terhadap FMCG, metode penelitian tersegmentasi menjadi dua:

A. Untuk memeriksa dan menganalisis kesenjangan penelitian saat ini dalam tren pasar dan sentimen pelanggan, penelitian ini mengadopsi pendekatan berikut:

1. Mengevaluasi penelitian sebelumnya mengenai tren pasar dan teknik analisis sentimen pelanggan untuk mengidentifikasi kesenjangan / masalah yang akan menjadi masukan untuk membangun model yang terintegrasi.
2. Melakukan survei sebagai input dari berbagai organisasi bisnis, mengumpulkan data historis dari aplikasi web, dan aplikasi mobile.
3. Desain model konseptual untuk menganalisis tren pasar dan sentimen pelanggan terhadap tren pasar berdasarkan temuan pada langkah 1 dan 2.
4. Membangun model yang dirancang untuk verifikasi / evaluasi kinerja.
5. Verifikasi / evaluasi kinerja model yang diusulkan untuk mengidentifikasi kekurangan.
6. Jika ada kekurangan, maka kurangi dan / atau lakukan peningkatan dan ulangi langkah 4 (mungkin ulangi dari langkah 4).
7. Jika tidak ada lagi kekurangan, model diterima

- B. Untuk prediksi pasar dan melihat pola *customer impuls buying*, akan mengadopsi teknik *machine learning* untuk mencapai akurasi tinggi. Dengan konsep pemikiran *artificial neural network* (ANN) yang meniru cara kerja neuron secara biologis, ANN belajar melalui *back-propagation* dengan *supervised training dataset*. Output prediksi akan diperbandingkan dengan hasil yang sebenarnya. Metrik kualitas terbaik akan digunakan untuk menyempurnakan model. Proses ini berulang hingga hasil (akurasi) yang diinginkan tercapai. Studi ini juga bertujuan untuk menyelidiki struktur model yang memiliki kemampuan DBN dan kemampuan otomatis menghasilkan fitur sebagai DFS-DSM
 - C. Tugas dari masing-masing anggota peneliti adalah sebagai berikut
Indrawati bertugas membuat konsep dasar dan desain penelitian, serta melakukan analisis, dan sintesa data.
Gadang Ramantoko bertugas melakukan pengumpulan data di Indonesia, membantu analisis dan sintesa data.
Izzatdin Abdul Aziz bertugas melakukan pengumpulan data di wilayah Malaysia, membantu analisis dan sintesa data.
Hsing-Kuo Wang bertugas melakukan pengumpulan data di wilayah Taiwan, membantu analisis dan sintesa data.

Jadwal penelitian disusun dengan mengisi langsung tabel berikut dengan memperbolehkan penambahan baris sesuai banyaknya kegiatan.

JADWAL

Tahun ke-1

No	Online Buying Behavior Intention Prediction (Attention stage)	Bulan											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Introduction												
	Gambaran Umum dan Latar Belakang	v	v										
	Perumusan masalah			v	v								
	Kerangka Teori			v									
	Pertanyaan penelitian				v								
	Pengambilan data: Eksperimental design					v		v	v	v	v	v	
	Pengolahan data						v	v	v	v	v	v	
	Pelaporan						v	v	v	v	v	v	
	Publikasi								v	v	v	v	

Tahun ke-2

No	Increasing the Machine Accuracy (Focus in intention stage)	Bulan											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Introduction												
	Gambaran Umum dan Latar Belakang												
	Perumusan masalah												
	Kerangka Teori	v	v	v	v		v	v		v	v		
	Pertanyaan penelitian												
	Pengambilan data: Eksperimental design												
	Pengolahan data												
	Pelaporan												
	Publikasi									v	v		

Tahun ke-3

No	Accurate Machine to Predict Facial Expression and Accurate Personalized Stimulus Program	Bulan											
		1	2	3	4	5	6	7	8	9	10	11	12
	Introduction												
	Gambaran Umum dan Latar Belakang												
	Perumusan masalah												
	Kerangka Teori												
	Pertanyaan penelitian												
	Pengambilan data: Eksperimental design												
	Pengolahan data												
	Pelaporan												
	Publikasi												

Daftar pustaka disusun dan ditulis berdasarkan sistem nomor sesuai dengan urutan pengutipan. Hanya pustaka yang disitasi pada usulan penelitian yang dicantumkan dalam Daftar Pustaka.

DAFTAR PUSTAKA

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LAMPIRAN 1. BIODATA PENGUSUL**A. BIODATA KETUA PENGUSUL**

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h-Index	3

Publikasi di Jurnal Internasional terindeks

No	Judul Artikel	Peran (First author, Corresponding author, atau co-author)	Nama Jurnal, Tahun terbit, Volume, Nomor, P-ISSN/E-ISSN	URL artikel (jika ada)
1	Developing a Measurement Tool to Investigate Students Continuance Intention in Using Mobile Learning Application		International Journal of Science and Research, 2019, 8, 6, 2319-7064	https://www.ijsr.net
2	Measurement Tool for Testing the Intention to Use Automated People Mover System		International Journal of Science and Research, 2019, 8, 3, 2319-7064	https://www.ijsr.net
3	Measuring Factors Influencing the Adoption of OVO Feature in Grab Application in Indonesia		The International Journal of Business & Management, 2019, 7, 1, 2321-8916	http://international
4	Measuring Smart Mobility Readiness Index : A Bandung Perspective		IJSRP, 2019, 9, 9, 2250-3153	http://www.ijsrp.org
5	Measuring Tools for Analyzing Factors Influencing Customer Continuance Intention towards Travel Mobile Application (A Case Study on KAI Access from PT. Kereta Api Indonesia).		International Journal of Business and Management Invention (IJBMI), 2019, 8, 1, 2319 – 8028	http://www.ijbmi.org
6	Measuring Tools for Analyzing Factors Influencing Users' Continuance Intention Toward a Learning Platform in Bandung Indonesia		International Journal of Science and Research, 2019, 7, 12, 2319-7064	https://www.ijsr.net
7	Predicting Behavior Intention to Adopt Teleconsultation Technology (A Perspective From The Implementation Of	first author	Journal of Advanced Research in Dynamical and Control Systems. , 2019, 11, 05, 352-357	http://www.jardcs.or

	Udoctor At Telkom Indonesia).			
8	PREDICTING BEHAVIOR INTENTION TO ADOPT TELECONSULTATION TECHNOLOGY (A PERSPECTIVE FROM THE IMPLEMENTATION OF UDOCTOR AT TELKOM INDONESIA)		Journal of Advanced Research in Dynamical and Control Systems, 2019, 11, 05-Special, 1943-023X	https://www.jardcs.o
9	Smart Security and Safety Index Measurement: A Case Study In Bandung Indonesia	first author	Humanities & Social Science Reviews, 2019, 7, 5, 2395-6518	https://giapjournals
10	SMART SECURITY AND SAFETY INDEX MEASUREMENT: A CASE STUDY IN BANDUNG INDONESIA		Humanities & Social Science Reviews, 2019, 7, 5, 2395-6518	https://giapjournals
11	Tools for Measuring Factors Influencing User???s Continuance Intention towards Community-Based Traffic and Navigation App in Indonesia.		International Journal of Science and Research (IJSR), 2019, 7, 12, 2319-7064	https://www.ijsr.net
12	Analizing Factors Affected Customers' Acceptance Toward High Speed Internet Access in SME Market (A case Study in XYZ Corporation).	first author	Advanced Science Letter , 2018, 24, 5, https://doi.org/10.1166/asl.2018.11307	https://www.ingentac
13	Factors Affecting the Acceptance and Usage of SSO Wifi.id in Indonesia	first author	Advanced Science Letter , 2018, 24, 5, https://doi.org/10.1166/asl.2018.11316	http://www.ingentaco
14	Factors Influencing Internet Banking Acceptance (A case Study of ABC Internet Banking in Bandung Indonesia).	first author	Journal of Engineering and Applied Sciences, 2017, 12, 1705 – 1709, 1816-949X	URL: http://medwellj
15	Identification of Smart Energy Indicators for Measuring Smart City : An Indonesian Perspective		The International Journal Of Business & Management, 2017, 5, 11, 2321-8916	http://www.theijbm.c
16	Materials for Measuring Instant Messenger Application Adoption: Malaysians' Perspectives	first author	Applied Mechanics and Materials , 2017, 865, 713-719, ISSN:1662-7482	www.scientific.net/A
17	Online Collaboration Adoption Measurement Material: a Case Study in Indonesia's ABC Telco Company	first author	Applied Mechanics and Materials , 2017, 865, 713-719, ISSN:1662-7482	www.scientific.net/A

18	Proposed Model for Measuring Instant Messenger Applications Adoption Among Indonesians and Malaysians	first author	Journal of Engineering and Applied Sciences, 2017, 12, 1377-1385, 10.3923/jeasci.2017.1377.1385	http://medwelljournals.org
19	Big Data Analysis Optimization to Enhance High Speed Internet Customers' Loyalty (An Indonesian Perspective)	first author	International Business Management, 2016, 10, 3800-3806, DOI: 10.3923/ibm.2016.3800.3806	http://medwelljournals.org
20	A Proposed Model for Measuring Instant Messenger Applications Adoption Among Indonesians and Malaysians	first author	International Conference on Technology Management Business and Entrepreneurship dan Mediteranian Journal of Social science, 2015, 6, 2, 0976-2930	http://www.dline.inf
21	Measurement for Analyzing Instant Messenger Application Adoption Using a Unified Theory of Acceptance and Use of Technology 2	first author	IBM 2015 (International Business Management), 2015, 9, 4, 1993-5250	https://www.medwelljournals.org
22	The Use of Modified Unified Theory of Acceptance and Use of Technology to Predict the Behavioural Intention toward Website (A Case Study in ABC University in Indonesia)		Applied Mechanics and Materials, 2015, 568, 570, 1662-7482	https://www.researchgate.net
23	The Use of Modified Unified Theory of Acceptance and Use of Technology to Predict the Behavioural Intention toward Website (A Case Study in ABC University in Indonesia).	first author	Applied Mechanics and Materials , 2014, 568-570, 1586, doi:10.4028/www.scientific.net/AMM.568-570.1586.	https://www.scientific.net
24	A New Conceptual Model of Mobile Multimedia Service (MMS) and 3G Network Adoption in Indonesia	first author	International Journal of Information Science and Management , 2010, juni, Special Issue, 1726825	www.ricest.ac.ir

Publikasi di Jurnal Nasional Terakreditasi Peringkat 1 dan 2

No	Judul Artikel	Peran (First author, Corresponding author, atau co-author)	Nama Jurnal, Tahun terbit, Volume, Nomor, P-ISSN/E-ISSN	URL artikel (jika ada)
1	Measuring Tools for Analyzing Factors Influencing Continuance Intention of Digital Banking Adoption Using UTAUT 2 Model (A Case Study of Jenius in		International Journal of Business and Management Invention (IJBMI), 2019, 8, 1, 2319 – 8028	http://www.ijbmi.org

	Indonesia)			
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Prosiding seminar/konverensi internasional terindeks

No	Judul Artikel	Peran (First author, Corresponding author, atau co-author)	Nama Jurnal, Tahun terbit, Volume, Nomor, P-ISSN/E-ISSN	URL artikel (jika ada)
1	Indicators to Measure Smart Mobility: An Indonesian Perspective	first author	Prosiding International Conference on Telecommunications and Communication Engineering (ICTCE), 2017, -, -, 978-1-4503-5315-1	https://doi.org/10.1
2	Identification of Smart Technology Indicators for Measuring Smart City: An Indonesian Perspective.	first author	Prosiding International Conference on Telecommunications and Communication Engineering (ICTCE), 2017, -, -, 978-1-4503-5315-1	https://doi.org/10.1
3	Identifying Smart Healthcare Indicators for Measuring Smart City: An Indonesian Perspective.	first author	Prosiding International Conference on Telecommunications and Communication Engineering (ICTCE), 2017, , , 978-1-4503-5315-1	https://doi.org/10.1
4	Social Network Data Analytics for Market Segmentation in Indonesian Telecommunication Industry	first author	Proceedings of 5th International Conference on Information and Communication Technology (ICoICT). , 2017, , , 978-1-5090-4912-7	http://ieeexplore.ie
5	Adoption Factors of Online-Web Railway Ticket Reservation Service (A Case from Indonesia).	first author	Proceedings of 5th International Conference on Information and Communication Technology (ICoICT). , 2017, , , 978-1-5090-4912-7	http://ieeexplore.ie
6	Online Collaboration Adoption: a Case Study in Indonesia' ABC Telco Company in Indonesia	first author	Proceedings of 5th International Conference on Information and Communication Technology (ICoICT). , 2017, , , 978-1-5090-4912-7	http://ieeexplore.ie
7	Examining factors influencing webinar adoption using UTAUT model (Case study at distance learning program, ABC University, Bandung-Indonesia	first author	2016 IEEE Asia Pacific Conference on Wireless and Mobile (APWiMob), Bandung, 2016, , , 16599685	https://ieeexplore.i
8	Predicting Smart Metering Acceptance by Residential Consumers: an Indonesian Perspective	first author	Conference Proceeding of 4th International Conference on Information and Communication Technology (ICoICT) , 2016, -, -, 978-1-5090-4912-7	http://www.iadisport

9	Factors Affecting E-Commerce Adoption by Micro, Small and Medium-Sized Enterprises in Indonesia	first author	Proceedings of the International Conference on E-Commerce and Digital Marketing, 2015, -, -, 978-989-8533-42-5	http://www.iadisport
10	Digital Advertising Media Adoption in Consumer Goods Industry (An Indonesian Perspective).	first author	Conference Proceeding of 4th International Conference on Information and Communication Technology (ICoICT) , 2016, , , 978-1-5090-4912-7	2016 4th Internation

Buku

No	Judul Buku	Tahun Penerbitan	ISBN	Penerbit	URL (jika ada)
1	Inilah Cara Mengukur Kesiapan Suatu Kota Pintar	2019	978-623-7374-28-2	Intelegensia Media	-
2	Metode Penelitian Kualitatif	2019	978-602-6322-90-6	PT. Refika Aditama	-
3	Metode Penelitian Kualitatif Manajemen dan Bisnis Konvergensi Teknologi Informasi dan Komunikasi	2018	9786026322906	Refika Aditama	-
4	Perilaku Konsumen Individu Dalam Mengadopsi Layanan Berbasis Teknologi Informasi dan Komunikasi	2017	978-602-6322-35-7	PT. Refika Aditama	-
5	Metode Penelitian Manajemen dan Bisnis: Konvergensi Teknologi Komunikasi dan Informasi	2015	978-602-7948-54-9	Refika Aditama	-

Perolehan KI

No	Judul KI	Tahun Perolehan	Jenis KI	Nomor	Status KI (terdaftar/granted)	URL (jika ada)
1	Buku "Metode Penelitian Kualitatif Manajemen dan Bisnis Konvergensi Teknologi Informasi dan Komunikasi"	2018	Hak Cipta	000125089	Granted	-
2	Metode Penelitian Kualitatif Manajemen dan Bisnis Konvergensi Teknologi Informasi dan Komunikasi	2018	Hak Cipta	000125089	Granted	-

Riwayat penelitian didanai Kemenristekdikti

No	Judul	Tahun	Dana Disetujui
1	Prediksi Perilaku Pembelian Impulsif Pelanggan dengan Menggunakan Teknik Machine Learning Big Data (Big Data Predictive Analytic for Customers Impulsive Buying Behavior using Machine Learning Technique)	2020-2021	79,950,000
2	Penggunaan Teknologi Blockchain untuk Pelacakan Makanan Halal (Blockchain Technology for Tracing Halal Food)	2020-2021	92,420,000
3	Matrik untuk Mengukur Tingkat Kehijauan Kota: Suatu Studi dari Bandung Indonesia	2018-2019	56,640,000
4	Model Pengukuran Sistem Pajak Online PHRI Berdasarkan Persepsi Pengguna: Studi Kasus di Banjarmasin, Solo, dan Papua	2018-2019	59,860,000
5	Smart Building sebagai Bagian dari Smart City untuk Keberlanjutan Kehidupan Kota	2018-2019	41,940,000
6	INDEKS UNTUK MENGIKUR KESIAPAN KOTA PINTAR: SUATU STUDI DI KOTA BANDUNG	2017-2018	154,450,000
7	INDEKS UNTUK MENGIKUR KESIAPAN KOTA PINTAR: SUATU STUDI DI KOTA BANDUNG	2016-2017	93,000,000
8	Measuring Instant Messenger Application Adoption by using Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) (A Comparative Study between Indonesia and Malaysia Customers)	2015-2016	150,000,000
9	Measuring Instant Messenger Application Adoption by using Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) (A Comparative Study between Indonesia and Malaysia Customers)	2014-2015	155,000,000

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Publikasi di Jurnal Internasional terindeks

No	Judul Artikel	Peran (First author, Corresponding author, atau co-author)	Nama Jurnal, Tahun terbit, Volume, Nomor, P-ISSN/E-ISSN	URL artikel (jika ada)
1	Information Sharing Model in Supporting Implementation of e-Procurement Service: Case of Bandung City		International Journal of Supply Chain Management, 2017, 6, 3, 2050-7399	http://ojs.excelingt

Publikasi di Jurnal Nasional Terakreditasi Peringkat 1 dan 2

No	Judul Artikel	Peran (First author, Corresponding author, atau co-author)	Nama Jurnal, Tahun terbit, Volume, Nomor, P-ISSN/E-ISSN	URL artikel (jika ada)
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Prosiding seminar/konverensi internasional terindeks

No	Judul Artikel	Peran (First author, Corresponding author, atau co-author)	Nama Jurnal, Tahun terbit, Volume, Nomor, P-ISSN/E-ISSN	URL artikel (jika ada)
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Buku

No	Judul Buku	Tahun Penerbitan	ISBN	Penerbit	URL (jika ada)
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Perolehan KI

No	Judul KI	Tahun Perolehan	Jenis KI	Nomor	Status KI (terdaftar/granted)	URL (jika ada)
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DR IZZATDIN ABDUL AZIZ

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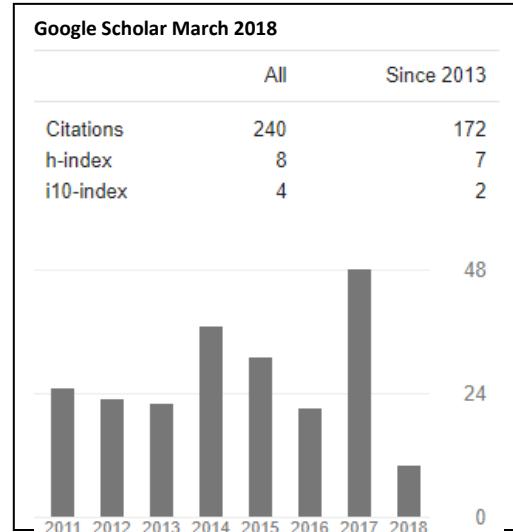
Senior Lecturer, Computer and Information Sciences Department (CISD)
Core Researcher, Centre for Research in Data Science (CERDAS)
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Biography, Character, and Interests

Currently, Dr Izzatdin is holding the position of Deputy Head, Center for Research and Data Sciences (CeRDaS), Lead Researcher at the High-Performance Cloud Computing Centre (HPC3) Universiti Teknologi PETRONAS (UTP), where he focuses in solving complex upstream Oil and Gas (O&G) industry problems from the view point of computer sciences. Izzatdin has secured and delivered numerous computing-related Oil and Gas projects mainly relating to Seismic Data Processing, Data Analytics for Digital Refinery, Field of The Future and implementation of workflows for processing hydrocarbon exploration dataset on cloud-based systems. His research is mainly funded by the Petroleum Research Fund, PETRONAS and The Malaysian Ministry of Higher Education. He has secured and delivered numerous research and commercialization projects worth of USD 2.8 Million.



Dr Izzatdin is working closely with O&G companies in delivering solutions for complex problems such as Offshore O&G pipeline corrosion rate prediction, O&G pipeline corrosion detection via hybrid state-of-the-art technologies, securing data on clouds, correlation and calibration of numerous oil and gas inspection datasets through methods in data science and real time analytics and designing and implementing Metocean prediction system. Additionally, he is also working on Big Data transmission, cyber security, and optimization problems on High Performance Computing Clusters.

He is currently an Executive Committee of IEEE Computer Society, Malaysia, a member of the Institute of Autonomous Systems and Autonomous Facilities (iAS) and a member of International Association of Engineers and the Society of Digital Information and Wireless Communication.

ACADEMIC QUALIFICATION

UNIVERSITY	QUALIFICATION
Deakin University, Australia	Doctor of Philosophy (IT)
University of Sydney, Australia	Master's in Information Technology, Specialize in Computer Networks
Universiti Teknologi PETRONAS, Malaysia	Bachelor of Technology (Honors) Information Technology, Minor in Corporate Management

RESEARCH GRANTS

STATUS	SOURCE	TITLE	AMOUNT (RM)
Completed 2005	UTP, Internal	Cryptosystem Using Parallel Computing with Clustered Architecture	20,000
Completed 2006	UTP, Internal	Preliminary Concept of UTP High Performance Computing Architecture	4,000
Completed 2009	UTP, Internal	Noise Removal in Seismograph using High Performance Computer	25,000
Completed 2010	Industry, Petroleum Research Fund	Modeling and Simulation of Photosynthesis-based Solar Energy System in 3D Virtual Environment	7,000,000
Completed, 2014	Amazon, AWS	Methods to Supporting Hydrocarbon Exploration and Discovery Using Clouds	193,653
Completed, 2014	UTP, Internal	Towards Open Source Seismic Data Processing on Parallel System	24,740
Completed, 2014	Industry, Petroleum Research Fund	Development of Metocean Cloud	128,000
Completed, 2014	UTP, Internal	Towards the Development and Portability of Open Source Seismic Interpretation Software Packages on High Performance Cloud	50,000
Completed, 2016	UTP, Internal	Novel Method or Long Range and Real Time Pipeline Corrosion Detection	50,000
Completed, 2016	Industry, HITACHI	The Study of Open Source Seismic Data Processing Software Packages Exploiting High Performance Computing Cluster.	30,000
Completed, 2016	UTP, Internal	A Study On Green It Related R&D Activities And Set-Up In Malaysia No 14, Open Source Seismic Computing Research	10,000
Completed, 2016	UTP, Internal	Pre-Flood Warning System Based On User Mobility	10,000
On-Going	Industry, Petroleum Research Fund	New Methods For ETL on Carat Database	120,000
On-Going	Industry, Petroleum Research Fund	A Prediction Model For Corrosion Damage Factor Due To Thinning On Oil And Gas Pipelines Using Artificial Neural Network.	148,000
On-Going	Industry, Petroleum Research Fund	Development of Intelligent Pipeline Integrity Management System (i-PIMS)	3,000,000
Total Amount			RM 10,813,393

JOURNAL PUBLICATIONS

Title	Publication	Year	Indexing	IF
The Study of OpenDTECT Seismic Data Interpretation and Visualization Package in Relation to Seismic Interpretation and Visualization Models	International Journal of Computer Science and Network Security (IJCSNS)	2018	SCOPUS , SCIMAGO, WoS ISI	ISI 0.32
An Analysis of Parallelization in Mamdani and Sugeno Type Quality of Web Service Fuzzy Monitoring Models	Journal of Theoretical & Applied Information Technology	2018	SCOPUS , SCIMAGO, WoS ISI, ELSEVIER	SJR 0.17
Algorithms for frequent itemset mining: a literature review	Artificial Intelligence Review	2018	SCOPUS , SCIMAGO, WoS ISI	ISI 2.86
Suitable Personality Traits for Learning Programming Subjects: A Rough-Fuzzy Model	International Journal of Advanced Computer Science and Applications(IJACSA), 2017.	2017	WoS ISI, Copernicus, CiteSeer	SJR 0.13
Terrorism Detection Based on Sentiment Analysis Using Machine Learning	Journal of Engineering and Applied Sciences	2017	SCIMAGO, SCOPUS, ARPN	SJR 0.14
A Comparative Study of Mamdani and Sugeno Fuzzy Models for Quality of Web Services Monitoring	International Journal of Advanced Computer Science and Applications (IJACSA)	2017	SCIMAGO, SCOPUS, ISI, CiteSeer	SJR 0.13
Finding an effective classification technique to develop a software team composition model	Journal of Software: Evolution and Process	2017	WILEY, SCIMAGO, ISI	ISI 1.273
The Study of OpenDTECT Seismic Data Interpretation and Visualization Package in Relation to Seismic Interpretation and Visualization Models	International Journal of Computer Science and Network Security (IJCSNS)	2017	SCIMAGO, SCOPUS, ISI, CiteSeer, Copernicus	ISI 0.32
Adaptive Multilayered Particle Swarm Optimized Neural Network (AMPSONN) for Pipeline Corrosion Prediction	International Journal of Advanced Computer Science and Applications (IJACSA)	2017	SCIMAGO, SCOPUS, ISI, CiteSeer	SJR 0.13
Enhancement of Confidentiality and Integrity During Big Data Transmission Using a Hybrid Technique	International Journal of Computer Applications (IJCA)	2016	SCIMAGO, SCOPUS	SJR 0.12
Pre-Flood Warning System Based on User Mobility	ARPN Journal of Engineering and Applied Sciences	2016	SCIMAGO,SCOPUS, DOAJ	SJR 0.2
BEDRUNN3R: An Intelligent Running Alarm Clock	ARPN Journal of Engineering and Applied Sciences	2016	SCIMAGO,SCOPUS, DOAJ	SJR 0.2
Roadside Worker Detection and Alert System Using RFID	ARPN Journal of Engineering and Applied Sciences	2016	SCIMAGO,SCOPUS, DOAJ	SJR 0.2
Balancing the personality of programmer: software development team composition	Malaysian Journal of Computer Science	2016	WoS ISI, SCOPUS and INSPEC	SJR 0.24
The High Performance Linpack (HPL) Benchmark Evaluation on UTP High Performance Computing Cluster	JURNAL TEKNOLOGI	2016	SCIMAGO, SCOPUS, ESCI-WOS	SJR 0.16
Designing a Vehicle Alarm Notification System Using GSM Network	JURNAL TEKNOLOGI	2016	SCIMAGO, SCOPUS, ESCI-WOS	SJR 0.17

A Lossless Compression Technique to Increase Robustness in Big Data Transmission System.	International Journal of Advances in Soft Computing & Its Applications	2015	SCIMAGO, SCOPUS, DOAJ	SJR 0.25
A RFID-based campus context-aware notification system	Journal of Computing	2010	WorldCat, DOAJ	n/a
Parallelization of Noise Reduction Algorithm for Seismic Data on a Beowulf Cluster	International Journal of Computer Science and Network Security (IJCSNS)	2010	SCIMAGO, SCOPUS, ISI, CiteSeer, Copernicus	ISI 0.32
Remote monitoring in agricultural greenhouse using wireless sensor and short message service (SMS)	International Journal of Engineering & Technology IJET	2009	SCIMAGO, SCOPUS	SJR 0.18
Solving traveling salesman problem on cluster compute nodes	WSEAS Transactions on Computers	2009	SCIMAGO, SCOPUS,Copernicus	SJR 0.16
Performance Evaluation of an Online Text-Based Strategy Game	International Journal of Computer, Electrical, Automation, Control and Information Engineering	2009	WorldCat	n/a
Parallelization of prime number generation using message passing interface	WSEAS Transactions on Computers	2009	SCIMAGO, SCOPUS,Copernicus	SJR 0.16
Time Comparative Simulator for Distributed Process Scheduling Algorithms	International Journal of Computer and Information Engineering	2008	International Science Index	n/a
Remote monitoring in Agriculture Greenhouse Using wireless sensor and SMS	International Journal of Engineering & technology IJET-IJENS Vol: 09 No	2006	SCIMAGO, SCOPUS	SJR 0.18

THESIS AND TECHNICAL REPORTS

Title	Publication	Year	Indexing
Quality of service-based service level agreement management framework for hydrocarbon exploration and discovery operation	Australian Digital Thesis, PhD	2014	Deakin University
The Study of the Madagascar Seismic Data Processing Package in Relation to Reflection Seismology Models	Technical reports., Computing series	2010	Worldcat
The Study of Seismic UNIX in Relation to Reflection Seismology Models	Technical reports., Computing series	2010	Worldcat
The Study of Seismic UNIX in Relation to Reflection Seismology Models	School of Information Technology Technical Report	2010	Worldcat
The Study of Madagascar Seismic Data Processing Package in Relation to Reflection Seismology Models	School of Information Technology Technical Report	2010	Worldcat

PROCEEDING PUBLICATIONS

Title	Publication	Year	Indexing
Pipeline leakage alert system with water displacement detection	Wireless Sensors (ICWiSe), 2017 IEEE Conference on	2017	IEEE Xplore
A survey on software defined network approaches for achieving energy efficiency in wireless sensor network	Wireless Sensors (ICWiSe), 2017 IEEE Conference on	2017	IEEE Xplore
Predictive analytic dashboard for desalter and crude distillation unit	Big Data and Analytics (ICBDA), 2017 IEEE Conference on	2017	IEEE Xplore
Data trustworthiness in Internet of Things: A taxonomy and future directions	Big Data and Analytics (ICBDA), 2017 IEEE Conference on	2017	IEEE Xplore
A survey on textual semantic classification algorithms	Big Data and Analytics (ICBDA), 2017 IEEE Conference on	2017	IEEE Xplore
A security scheme to minimize information loss during big data transmission over the internet	Computer and Information Sciences (ICCOINS), 2016 3rd International Conference on	2016	IEEE Xplore
CO ₂ corrosion rate determination mechanism implementing de Waard-Milliams model for oil & gas pipeline	Computer and Information Sciences (ICCOINS), 2016 3rd International Conference on	2016	IEEE Xplore
A corrosion prediction model for oil and gas pipeline using CMARPGA	Computer and Information Sciences (ICCOINS), 2016 3rd International Conference on	2016	IEEE Xplore
Handwritten digits recognition based on improved label propagation algorithm	Computer and Information Sciences (ICCOINS), 2016 3rd International Conference on	2016	IEEE Xplore
Preliminary framework of topology control algorithm in WSN to achieve node's energy efficiency	Computer and Information Sciences (ICCOINS), 2016 3rd International Conference on	2016	IEEE Xplore
Analysis of Big Data and quality-of-experience in high-density wireless network	Computer and Information Sciences (ICCOINS), 2016 3rd International Conference on	2016	IEEE Xplore
Protocols for agent-based autonomous negotiations: a review	Computer and Information Sciences (ICCOINS), 2016 3rd International Conference on	2016	IEEE Xplore
A Review on A High Performance Computing-based Interval Fuzzy Type-2 Model for Web Services' QoS Evaluation	Proceedings of the 4th International Conference on Information and Network Security	2016	ACM Digital Library, Semantic Scholar
Integration of Supportive processes with elementary Processes for making current practices of software Project Risk Management more effective	International Symposium on Mathematical Sciences and Computing Research (iSMSC)	2015	IEEE Xplore
Conceptual design of pre-flood warning system based on user mobility	International Symposium on Mathematical Sciences and Computing Research (iSMSC)	2015	IEEE Xplore
Open source seismic visualization package on OpenNebula cloud management system	International Symposium on Mathematical Sciences and Computing Research (iSMSC)	2015	IEEE Xplore

A multibit burst error detection and correction mechanism for application layer	Computer and Information Sciences (ICCOINS), 2014 International Conference on	2014	IEEE Xplore
A secure transmission scheme for textual data with least overhead	Twentieth National Conference on Communications (NCC), 2014	2014	IEEE Xplore
A multibit burst error detection and correction mechanism for application layer	Computer and Information Sciences (ICCOINS), 2014 International Conference on	2014	IEEE Xplore
Optimizing BOINC scheduling using genetic algorithm based on thermal profile	Computer and Information Sciences (ICCOINS), 2014 International Conference on	2014	IEEE Xplore
In support of Hydrocarbon Exploration and Discovery using clouds	Computer & Information Science (ICCIS), 2012 International Conference on	2012	IEEE Xplore
Context-aware instant messenger with integrated scheduling planner	Computer & Information Science (ICCIS), 2012 International Conference on	2012	IEEE Xplore
Parallelization of edge detection algorithm using mpi on beowulf cluster	Innovations in Computing Sciences and Software Engineering	2010	WoS ISI Springer, Dordrecht
Developing a simulation game to facilitate the acquisition and transfer of road safety knowledge	Information Technology (ITSIM), 2010 International Symposium in	2010	IEEE Xplore
Developing a Simulation Game to Facilitate Acquisition of knowledge on Road Safety for School Children	Information Technology, 2008. ITsim 2010. International Symposium on	2010	IEEE Xplore
Remote water quality monitoring system using wireless sensors	Proceedings of the 8th WSEAS International Conference on Electronics, Hardware, Wireless and Optical Communications (EHAC'09), Cambridge, UK	2009	ACM Digital Library, Semantic Scholar
A system architecture for water quality monitoring system using wired sensors	Information Technology, 2008. ITsim 2008. International Symposium on	2008	IEEE Xplore
A decision support system for performance appraisal	Information Technology: New Generations, 2008. ITNG 2008. Fifth International Conference on	2008	IEEE Xplore
Cooperative flood detection using GSMD via SMS	Information Technology, 2008. ITsim 2008. International Symposium on	2008	IEEE Xplore
Solving traveling salesman problem on high performance computing using message passing interface	Proceedings of the 7th WSEAS international conference on Computational intelligence, man-machine systems and cybernetics	2008	ACM Digital Library, Semantic Scholar
Parallelization Of Traveling Salesman Problem Using Rocks Cluster	International MultiConference of Engineers and Computer Scientists, Hongkong	2008	IAENG, Springer

3-d seismic visualization using seg-y data format	Information Technology, 2008. ITSim 2008. International Symposium on	2008	IEEE Xplore
Remote monitoring using sensor in greenhouse agriculture	Information Technology, 2008. ITSim 2008. International Symposium on	2008	IEEE Xplore
A proposed design for noise reduction algorithm in seismograph on High Performance Computing using FK filter	Information Technology, 2008. ITSim 2008. International Symposium on	2008	IEEE Xplore
Blind echolocation using ultrasonic sensors	Information Technology, 2008. ITSim 2008. International Symposium on	2008	IEEE Xplore
3-D seismic visualization using SEG-Y data format	Information Technology, 2008. ITSim 2008. International Symposium on	2008	IEEE Xplore
A proposed design for noise reduction algorithm in seismograph on high performance computing using FK filter	Information Technology, 2008. ITSim 2008. International Symposium on	2008	IEEE Xplore
Performance Evaluation on Hybrid Cluster: The Integration of Beowulf and Single System Image	Proceedings of ICTS, Jakarta	2006	Myjurnal, Platform

BOOK CHAPTERS

Title	Publication	Year	Indexing
CMARPGA: Classification Based on Multiple Association Rules Using Parallel Genetic Algorithm Pruned Decision Tree	International Conference of Reliable Information and Communication Technology (IRICT 2017)	2017	WoS ISI Springer, Cham
Inference Algorithms in Latent Dirichlet Allocation for Semantic Classification	Advances in Intelligent Systems and Computing	2017	WoS ISI Springer AISC
A Performance Evaluation of Chi-Square Pruning Techniques in Class Association Rules Optimization	Advances in Intelligent Systems and Computing	2017	WoS ISI Springer AISC
A Rough-Fuzzy Inference System for Selecting Team Leader for Software Development Teams	Advances in Intelligent Systems and Computing	2017	WoS ISI Springer AISC
A set of rules for constructing gender-based personality types' composition for software programmer	Springer Lecture Notes in Electrical Engineering (LNEE)	2015	WoS ISI Springer Verlag
An Audio Steganography Technique to Maximize Data Hiding Capacity along with Least Modification of Host	Lecture Notes in Electrical Engineering, 2014, (LNEE)	2013	WoS ISI Springer
Performance evaluation of open source seismic data processing packages	Springer Lecture Notes in Computer Science (LNCS)	2011	WoS ISI Springer, Berlin, Heidelberg

SUPERVISION OF UNDERGRADUATE RESEARCH PROJECT

Name	Title	Status
Mohamed Ferdaus Abd Wahab	RSA Cipher Using Parallel Computing with Grid Architecture	Completed 2005
Asma Mohamad Morthir	Wireless LAN Conceptual Design and Planning in Campus.	Completed 2005
Hamizan bt sharbini	Online O&G Data Analysis for Locating Oil & Gas Well.	Completed 2005
Noraishah Abu Bakar	Development of Early Warning Detection System Based on Seismic Activity Using SMS	Completed 2005
Nurul Jamilah Abu Samad	Sensing Textual Plagiarism	Completed 2005
Wan Rahaya bt Wan Dagang	Parallel Processing of RSA Algorithm Using MPI	Completed 2005
Hanafi Abdul Kadir	Secure Online Voting System For MPPUTP	Completed 2005
Wan Mohd Fairuz Zainal Abidin	Variable Engine Timing Selection System (VETS)	Completed 2005
Syed Ahmad Zeid Syed Hassan	VVT controller	Completed 2005
Aida Azura Ali Maher	Campus Mobile ACS Services	Completed 2006
Hamidah Syuaibah Ilias	Campus Mobile Clearance	Completed 2006
Mohd Nazmi Ishak	Residential College Mobile Services	Completed 2006
Suriana Abdul Karim	Mobile Course Auditing System For Graduating Students	Completed 2006
Marlinda Hj Abdul Salim	Public and Private Key Cryptography to Better Secure Document Using MPI	Completed 2006
Wan Nurhafizah Wan Harun	Efficient Job Scheduling Algorithm For Globus HPC Cluster	Completed 2006
Aisyah Nabilah Mustafar	Solving Traveling Salesman Problem Using High Performance Computing	Completed 2006
Zurina Afidah Anuar	Automated Noise Removal in Seismograph	Completed 2006
Is Ealyana Zainal Abidin	Human Tracking System Using RFID	Completed 2006
Mohd Afshar Jamalulalam	Automated Attendance System Using Active RFID	Completed 2007
Sajee Mahamad Phiphat Mahamad	Blind Echolocation	Completed 2007
Jetsaraphorn Wae Esor	RFID Real Time Tracker"	Completed 2007
Thayalan sandran	Noise Reduction Algorithm For Seismograph on High Performance Computing Using F-K Filter"	Completed 2007
Izyan Ahmad Hamizan	Cooperative Flood Alert System Using GSM Network	Completed 2007
Mohd Jimmy Ismail	Green House Monitoring System Using GSM Network	Completed 2007
Nurul Asyikin Mazelan	3D Visualization Using SEG-Y Data Format	Completed 2007
Aimi Izyan Kamel	Interactive Museum Information Via Bluetooth	Completed 2007

Siti Sarah Yusof	Solving TRP Using Genetic Algorithm	Completed 2013
Ng Tong Wu	RFID Assist Fire Escape System	Completed 2013
Nur Fairuz Izzaty	Open Source Seismic Visualization packages on Open Source Cloud Management Systems	Completed 2014
Fateen Atiqah Mastor	Pre-Flood Warning System based on User Mobility"	Completed 2015
Sofea Azrina Azizan	Conceptual Study and Design of Vehicle Alarm	Completed 2015
Siti Nur Izzaty Norizan	Distance Warning Alert	Completed 2015
Selbi Melayeva	Frequency Based Pesticide	Completed 2015
Lee Jia Zhen	Smart Brokering For Household Items	Completed 2015
Wong Chun Shiang	The High Performance Linpack (HPL) Benchmark Test on UTP on HPC	Completed 2015
Tiffany Supirid	Pipeline Corrosion Detection Mechanism Using Acoustic Emission Sensor Dataset	Completed 2015
Ermina Syahirah bt Mohamad Nordin	Automated pH Regulator and Remedial For Freshwater Prawn	Completed 2016
Wan Mohammad Aflah bin Mohammad Zubir	CO2 Corrosion Rate Determination Mechanism Implementing deWaard-Milliams Model for Oil & Gas Pipeline	Completed 2016
Nur Dayana binti Abd Jalil	Child Locator and Notification System Using RFID in Shopping Center	Completed 2016
Tan Wei Xuan	Product Recommendation Using Colour Recognition & Preferences Mapping	Completed 2016
Nur Syakirah Mohd Jaafar	Decision Support System during Flood for Public Emergency Services	Completed 2016
Adibah Shahrum	Conceptual Study and Design of an Early Notification System for Water Quality Monitoring System	Completed 2016
Eliya Fariha Binti Rusli	Pipeline Leakage Alert System with Water Displacement Detection	Completed 2017
Siti Nabilah Binti Hassanudin	Visualization Dashboard for Desalter and Crude Distillation Unit	Completed 2017
Thachiayeni Moorthy	Sentiment Classification on The Act of Pedophile's on Social Media	Completed 2017
Nurul Aiman Hanani Binti Mohd Fairus	IOT Based Early Warning System for Landslide	Completed 2017
Norismadiana binti Mohd Suhaimi	Skin Foundation Selection Based on Skin Color Using Bluetooth-Based Android Smartphone	Completed 2017
Julia Atikah binti Md Alashari	Corrosion Prediction Using Machine Learning	Completed 2017

SUPERVISION OF POSTGRADUATE BY RESEARCH

Level	Name	Title	Status
MSc	Norzatul Natrah Ismail	Optimizing Green BOINC Scheduling	Completed 2015
MSc.	Tong Han Chern	Corrosion Prediction Model Using Enhanced Associative Classification	Completed 2018
MSc.	Lee Kien Ee	Adaptive Multilayered Particle Swarm Optimized Neural Network (AMPSONN) for Pipeline Corrosion Prediction	Waiting for VIVA APR 2018
MSc.	Sofea Azrina Azizan	Sentiment Analysis Using Duplet Hierarchical Classification Selection (DHCS) for Terrorism Detection	Waiting for VIVA JUNE 2018
MSc.	Wan Mohammad Aflah bin Mohammad Zubir	Enhanced Inference in Latent Dirichlet Allocation for Semantic Classification	On-Going
MSc.	Nur Syakirah Jaafar	An Enhance Approach of Filtering to Select Adaptive IMFs of EEMD for Signal Processing in Fiber Optic Signal	On-Going
PhD.	Baseer Faisal	Empirical performance analysis of PSO algorithms when used in collaboration with other prediction-oriented	On-Going
PhD.	Shiladitya Bhattacharjee	A Robust, Secured, Authentic Data Transmission Technique Along with Least Overhead Completed	Completed 2016
PhD	Muhamad Hariz Bin Muhamad Adnan	Continuous Combinatorial Double Auction Framework for Heterogeneous Cloud Service Negotiation	On-going
PhD	Sana Qaiyum	Quality-of-Experience Modeling based on Fuzzy Type-2 Incremental algorithm	On-going



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CURRICULUM VITAE

PERSONAL IDENTITY

Full Name	Hsing-Kuo Wang	
Employment ID Number		
Place, Date of Birth	Kaohsiung Taiwan, 03 Dec 1969	
Gender	Male	
Field of Doctorate	Human Resources Management	
Doctorate Degree From	National Sun-Yat Sen University	
Cell Phone Number	+886989602978	
E-mail Address	andywang@nqu.edu.tw	
University Address	1st, Univeristy Rd., Jinning Township, Kinmen, Taiwan, ROC.	
Home Address	143, Pu-Hou, Jinning Township, Kinmen, Taiwan	
Current Position	Associate Professor at National Quemoy University and the Department Head of Business Administration	

EDUCATIONAL BACKGROUND

YEAR	EDUCATION	UNIVERSITY	PROGRAM	DEGREE
1992-1994	Undergraduate	University of Northumbria, UK	Bachelor in International Business Studies	Bachelor
1994 - 1995	Master	University of Wales, Bangor, UK	Master of Management	Financial Management
2002-2006	Doctorate	National Sun-Yat Sen University, Taiwan	Philosophy of Doctor in Management	Doctor in HRM

**RESEARCH EXPERIENCE (Projects granted by Ministry of Science and Technology,
Taiwan)**

YEAR	RESEARCH TITLE
2019	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology, 2019/07/31~2020/08/01
2019	The Influence of Corporate Social Responsibility on Employee Commitment and Performance: The Moderating Effect of Collectivism. 2019/08/01~2020/07/31 108-2410-H-507-005-SSS.
2018	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology, 2019/07/31~2020/08/01
2018	A Cross-level Analysis on Parent Leadership, Psychological Contract, and Employee Performance. 2018/08/01~2019/07/31 107-2410-H-507-009-SSS
2017	A Correlation Analysis on Corporate Social Responsibility and Organizational Commitment: dual Mediating Effects of Organizational Identification and Psychological Contract. (106-2410-H-507-012-SSS) 2017/08/01~2018/07/31.
2017	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology 106-2821-C-507-001-ES 2017/08/01-2018/07/31
2016	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology (105-3114-C-507-001-ES) 2016/08/01-2017/07/31
2015	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology (104-3114-C-507-001-ES) 2015/08/01-2016/07/31
2015	A Cross-level Analysis on Servant Leadership, Customer Orientation, and Service Performance: The Mediating Effect of Employee Identification. 2015/08/01-2016/07/31
2015	A Special Project: Innovation In Kinmen 2015/10/20~2016/05/30
2014	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology (103-3114-C-507-001-ES) 2014/08/01-2015/07/31
2014/5	Grants for Academic Research Seminar: Individual Job Fitness, Organizational Fitness, Retention and Performance.
2014	The Influences of Social Capital on Organizational Innovation: The Mediating Effect of Knowledge Sharing. (103-2410-H-507-017-) 2014/08/01-2015/07/31
2013	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology (102-3114-C-507-001-ES) 2013/08/01~2014/07/31
2013	From the Context Perspective to explore the Relationships among High-Performance HR Practices, Guanxi, and Organizational Performance. (102-2410-H-507-008) 2013/08/01~ 2014/07/31
2013	A Special Project: Water Resources (102027) 2013.10.20~2014.05.30
2013	Management Control Theories and the European Excellence Model (102WCSFAB600003), 2013/03/01~2013/03/10.
2013	Total Involvement in Quality (TIQ): Diagnosing, planning and involvement for change and excellence (Post Denmark Case) (102WCSFAB600001) 2013/03/01~2013/03/10.

2012	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology (101-3114-C-507-001-ES) 2012/08/01~2013/07/31
2012	A Cross-level Research on the Effects of HRM practices on the Performance: The mediating effect of employee readiness. (101-2410-H-507-003-) 2012/08/01 ~2013/07/31
2012	A Cross-level Research on the Effects of HRM practices on the Performance: The mediating effect of employee readiness. (101-2410-H-507-003-) 2012/08/01 ~2013/07/31
2012	A Cross-level Research on the Effects of HRM practices on the Performance: The mediating effect of employee readiness. (101-2410-H-507-003-) 2012/08/01 ~2013/07/31
2012	Impact of institutional norms on knowledge sharing: The mediating role of trust (101-2914-I-507-002-A1) 2012/6/30~2012/7/3
2011	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology (100-3114-C-507-001-ES) 2011/08/01~2012/07/31
2011	Exploration the Effects of Social Capital on Knowledge Sharing-the Example of High-Tech Industries in Taiwan. (100-2410-h-507-001-) 2011/8/1~2012/7/31.
2010	The Relationship between Innovation Orientation and Organizational Performance-the mediating effect of managers' network, (99-2410-H-507-001-) 2010/8/1~2011/7/31.
2010	Winner of Distinguished Scholar granted by National Science Council, Ministry of Science and Technology (99-3114-C-507-001-ES) 2010/08/01~2011/07/31.

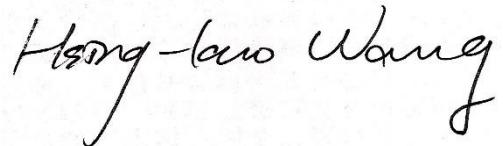
PUBLICATIONS		
YEAR	TITLE	PROCEEDING / JOURNAL / TEXT BOOK
2016	High performance work practices and organizational performance in small firms: the role of guanxi.	Total Quality Management & Business Excellence, 27(6)628-646. [SSCI] ISSN:1478-3363
2015	Knowledge sharing in knowledge workers: The roles of social exchange theory and the theory of planned behavior.	Innovation: Management Policy & Practice. 17(4):450-465. [SSCI] ISSN:1477-8238
2015	The effect of internal social capital on knowledge sharing.	Knowledge Management Research & Practice. 13:214-224. [SSCI] ISSN:1477-8238

2014	How do institutional norms and trust influence knowledge sharing? An institutional theory.	Innovation: Management Policy & Practices,16(3):374-391. [SSCI] ISSN:1447-9338
2014	Organisational innovability: exploring the impact of human and social capital in the banking industry.	Total Quality Management & Business Excellence, 25(9/10):1088-1104. [SSCI] ISSN:1478-3363
2014	Exploring the mediating role of trust on the relationship between guanxi and knowledge sharing: A social network perspective.	Asia Pacific Journal of Human Resources, 52(2):173-192. [SSCI] ISSN:1038-4111
2012	An empirical exploration of corporate entrepreneurial orientation and performance in Taiwanese SMEs: A perspective of multidimensional construct.	Total Quality Management & Business Excellence, Vol.23, 9/10, 1035-1044. [SSCI] ISSN: 1478-3363
2012	Examining the mechanisms linking guanxi, norms, and knowledge sharing: the mediating roles of trust in Taiwan's high-tech firms.	The International Journal of Human Resource Management,23:4048-4046. [SSCI] ISSN:0958-5192
2011	Research on the Relationships among Performance Evaluation System, Organizational Learning and Organizational Identification.	Social Behavior and Personality, Vol. 39, No.1:43-54. [SSCI] ISSN:0301-2212
2008	An Empirical Research on the Relationship between Human Capital and Innovative Capability: A study on Taiwan's Commercial Banks.	Total Quality Management & Business Excellence, Vol.19, No.11-12, 1189-1205. [SSCI] ISSN:1478-3363
2008	The Study of Fundraising Campaigns in Higher Education in Taiwan.	Journal of National Kinmen Institute of Technology ,Vol.3,1-10. ISBN:978-986-01-3756-9
2006	An Empirical Research on the Institutional Theory of Downsizing: Evidence from MNC's Subsidiary Companies in Taiwan.	Total Quality Management & Business Excellence, Vol. 17, No. 5, 633-654. [SSCI] ISSN:1478-3363

2019	Guanxi, knowledge sharing and organizational innovation: Examining the mediation process in the Chinese schema.	Academy of International Business (JIBS), Copenhagen, Denmark, June 24-27, 2019.
2018	Servant leadership, employee identification, and customer orientation: A cross-level investigation.	30th International Conference on Social Sciences, Business, Economics and Management Studies. May 23-24, Bangkok, Thailand.
2016	Examining the mechanisms linking commitment-based human resource practices, and employee job performance: The roles of organizational socialization.	ACAS2016, The Asian Conference on Asian Studies, Kobe, Japan. June 2-5.
2015	Determinants of individual engagement in knowledge sharing: The social capital perspective. Tokyo, Japan.	The 3rd International Symposium on Economics and Social Science (ISESS).
2014	The effect of social capital on organizational innovation: A perspective of Chinese schema.	Academy of Management Annual Meeting. Philadelphia, Pennsylvania. USA Aug. 2014.[2014 AOM Annual Meeting] ISSN:1543-8643
2013	An ethical perspective for understanding human capital within human resource management.	Asian Conferences on the Social Science, 2013 Annual Meeting, Osaka. Japan. June 2013.
2013	Impact of institutional norms on knowledge sharing: The mediating role of trust.	AIB 2012 Annual Meeting, Washington. USA. June 2012. [2012 Journal of International Business Studies Conference]
2011	Guanxi, Norms, Trust, and Knowledge Sharing in High-Technology firms: The View of Social Capital.	Academy of Management Annual Meeting. San Antonio, Texas. USA Aug. 2011. [2011 AOM Annual Meeting]
2010	Impact of Entrepreneurial Orientation on Firm Performance: The Moderating Role of Managerial Networks. 11th International Conference on Human Resource Development Research and Practice across Europe. Pecs, Hungary June.	[2010 AHRD Annual Meeting] ISBN:978-963-642-326-1

2008	Exploration on the Relationship between Human Capital and Firm Performance: The Role of Innovation.	Academy of Management Annual Meeting. Anaheim, California. USA Aug. 2008 [2008 AOM Annual Meeting] ISSN:1543-8643
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Taiwan, 7th August 2019



Hsing-Kuo Wang, Ph.D

LAMPIRAN 3. BUKTI PEROLEHAN KI



REPUBLIK INDONESIA
KEMENTERIAN HUKUM DAN HAK ASASI MANUSIA

SURAT PENCATATAN CIPTAAN

Dalam rangka pelindungan ciptaan di bidang ilmu pengetahuan, seni dan sastra berdasarkan Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta, dengan ini menerangkan:

Nomor dan tanggal permohonan

: EC00201854986, 21 November 2018

Pencipta

Nama

: Indrawati

Alamat

: Jl. Sarimanah Raya No. 86 RT 008 RW 003 Kelurahan Sarijadi Kecamatan Sukasari, Bandung, Jawa Barat, 40151

Kewarganegaraan

: Indonesia

Pemegang Hak Cipta

Nama

: Universitas Telkom

Alamat

: Jl. Telekomunikasi Terusan Buah Batu Dayeuhkolot, Kabupaten Bandung, Jawa Barat, 40257

Kewarganegaraan

: Indonesia

Jenis Ciptaan

: Buku

Judul Ciptaan

: Metode Penelitian Kualitatif Manajemen Dan Bisnis Konvergensi Teknologi Informasi Dan Komunikasi

Tanggal dan tempat diumumkan untuk pertama kali di wilayah Indonesia atau di luar wilayah Indonesia

: 19 November 2018, di Bandung

Jangka waktu pelindungan

: Berlaku selama 50 (lima puluh) tahun sejak Ciptaan tersebut pertama kali dilakukan Pengumuman.

Nomor pencatatan

: 000125089

adalah benar berdasarkan keterangan yang diberikan oleh Pemohon.

Surat Pencatatan Hak Cipta atau produk Hak terkait ini sesuai dengan Pasal 72 Undang-Undang Nomor 28 Tahun 2014 tentang Hak Cipta.



a.n. MENTERI HUKUM DAN HAK ASASI MANUSIA
DIREKTUR JENDERAL KEKAYAAN INTELEKTUAL

Dr. Freddy Harris, S.H., LL.M., ACCS.
NIP. 196611181994031001

PERSETUJUAN USULAN

Tanggal Pengiriman	Tanggal Persetujuan	Nama Pimpinan Pemberi Persetujuan	Sebutan Jabatan Unit	Nama Unit Lembaga Pengusul
19 Agustus 2019	19 Agustus 2019	ANGGA RUSDINAR S.T, Ph.D	Direktur Penelitian dan Pengabdian Masyarakat	Direktorat Penelitian dan Pengabdian Masyarakat