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MODEL PENYAJIAN PELAPORAN KEUANGAN DALAM PENGAMBILAN KEPUTUSAN YANG EFEKTIF DAN EFISIEN

Tahun ke-1 dari rencana 2 tahun

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RINGKASAN

Pemikiran terhadap penyederhanaan dan peningkatan penyajian laporan keuangan banyak dilakukan oleh para akademisi. Hal ini dilandasi pemikiran bahwa angka yang tercantum dalam tabel tidak memberikan kemudahan bagi para pengambil keputusan. Pengambil keputusan tidak semua berlatar belakang pendidikan akuntansi sehingga menjadi keterbatasan dalam pengambilan keputusan bahkan dapat berujung pada keputusan yang salah. Oleh karena itu, kompleksitas penyajian dan pemahaman laporan keuangan seharusnya dapat disederhanakan sehingga pengambil keputusan dapat mengambil keputusan yang akurat (efektif) dan cepat (efisien)

Tujuan penelitian ini adalah penyederhanaan penyajian laporan keuangan menggunakan pendekatan emotikon, sehingga lebih sederhana dan mudah dipahami oleh semua kalangan pengguna laporan keuangan. Hasil penelitian ini dapat diterapkan dan dimanfaatkan, di antaranya oleh: 1) pemilik perusahaan (investor) untuk menilai kinerja investasinya, 2) manajer untuk melakukan analisis kinerja, 3) pembuat standar akuntansi untuk penyederhanaan konten informasi keuangan yang kompleks, dan 4) bagi akademisi untuk sumbangsih pengembangan ilmu pengetahuan yang relevan dengan dunia praktek.

Metode penelitian yang digunakan adalah eksperimen. Eksperimen dengan desain 2x2 berbasis komputer (*computer-based*) dirancang dan dilaksanakan selama dua tahun dalam dua tahapan. Tahapan pertama diawali dengan pemilihan emotikon yang mudah dikenali (*eye catching*) dan merepresentasi informasi dalam laporan keuangan melalui *focus group discussion* (FGD). Emotikon terpilih dalam FGD digunakan untuk merancang model pelaporan keuangan berbasis komputer yang mudah digunakan (*user friendly*). Hasil eksperimen tahap pertama dikembangkan dengan berbasis internet (*web*) untuk digunakan sebagai instrumen dalam eksperimen tahap kedua. Subjek eksperimen tahun pertama menggunakan partisipan dalam negeri (Jogjakarta dan Jakarta), dan eksperimen tahun kedua menggunakan partisipan dalam dan luar negeri. Variabel dependen dalam eksperimen tahap pertama adalah kemudahan/kegunaan informasi dalam pengambilan keputusan, dan variabel dependen untuk eksperimen tahap kedua adalah ketepatan penilaian investasi menggunakan laporan keuangan berbasis gambar. Kebaruan penelitian eksperimen ini adalah penggunaan model berbasis web sehingga lebih efektif dan efisien. Cakupan penelitian tidak terbatas pada kemampuan prediksi kebangkrutan tetapi juga penilaian kinerja perusahaan secara menyeluruh.

Hasil penelitian ini diharapkan menghasilkan *outcome* berupa: 1) laporan penelitian, 2) artikel *call for paper* untuk mengikuti konferensi atau seminar tingkat internasional, 3) artikel untuk dimuat di jurnal internasional, 4) penerbitan buku ajar untuk mahasiswa dan umum.

Kata kunci: model pelaporan keuangan, emotikon, dan pengambilan keputusan bisnis.

PRAKATA

Puji syukur kami panjatkan kepada Allah SWT atas diterimanya penelitian kami yang berjudul “Model Penyajian Pelaporan Keuangan dalam Pengambilan Keputusan yang Efektif dan Efisien” dalam skema hibah bersaing. Skema penelitian ini diharapkan dapat memberikan manfaat bagi peneliti, pembaca, pihak-pihak yang terlibat, serta bangsa Indonesia. Penelitian ini tidak dapat terlaksana tanpa bantuan dan dukungan baik dana maupun dukungan moral dan material dari Direktorat Penelitian dan Pengabdian Masyarakat Direktorat Jenderal Pendidikan Tinggi Kemristek, Kopertis Wilayah V, STIE YKPN, dan pihak-pihak lain yang tidak dapat peneliti sebutkan satu persatu. Laporan penelitian antara ini belum sempurna. Oleh karena itu perbaikan maupun input yang membangun akan sangat membantu peneliti untuk keberhasilan penelitian ini.

Peneliti

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BAB 1

PENDAHULUAN

1.1. LATAR BELAKANG

Pengambilan keputusan bisnis seringkali didasarkan pada data keuangan yang tercantum dalam laporan keuangan. Pemahaman atas laporan keuangan membutuhkan tingkatan pengetahuan tertentu. Hal ini tercantum dalam standar keuangan bahwa tujuan pembuatan laporan keuangan diperuntukkan bagi pembaca yang memiliki latar belakang pengetahuan akuntansi.

Pada saat ini laporan keuangan menjadi alat utama bagi penilaian kinerja suatu bisnis. Investor di pasar modal mendasarkan keputusan investasinya salah satunya berdasarkan laporan keuangan. Beberapa item di laporan keuangan diolah kembali misalnya untuk perhitungan rasio-rasio keuangan. Pengolahan kembali dilakukan karena biasanya laporan keuangan berbentuk cetakan ataupun tampilan pdf.

Kompleksitas laporan keuangan menjadi meningkat, tidak saja karena prinsip akuntansi yang digunakan semakin kompleks dan banyak, tetapi juga angka yang disajikan merupakan angka jadi. Tidak banyak inovasi dalam penyajian laporan keuangan. Ratnatunga (2016) memberikan kritikan terhadap penyajian laporan keuangan yaitu tidak tercatatnya aset tidak berwujud yang saat ini marak dimiliki oleh banyak perusahaan, adanya perbedaan nilai buku dan nilai wajar yang sangat tinggi, laporan keuangan disajikan dalam format tercetak, kemungkinan terjadinya manipulasi yang tinggi terhadap aset, dan analisis lebih lanjut terhadap laporan keuangan harus dilakukan dengan cara input ulang angka-angka yang telah tercetak dalam laporan keuangan.

Pemikiran terhadap penyederhanaan dan peningkatan penyajian laporan keuangan banyak dilakukan oleh para akademisi. Hal ini dilandasi pemikiran bahwa angka yang tercantum dalam tabel tidak memberikan kemudahan bagi para pengambil keputusan. Libby (1981) menyatakan bahwa ada tiga opsi untuk meningkatkan pengambilan keputusan dengan cara:

mengubah tampilan laporan keuangan, memberikan pendidikan akuntansi yang memadai bagi para pengambil keputusan, dan mengubah cara pengambilan keputusan menggunakan suatu model.

Pengubahan tampilan laporan keuangan oleh beberapa perusahaan dilakukan dengan menggunakan metode gambar melalui grafik dan tabel dalam bentuk dua atau tiga dimensi. Hal ini belum menjadi solusi yang tepat mengingat informasi multivariate akuntansi akan menjadi sangat kompleks untuk ditampilkan dalam grafik dan tabel dua atau tiga dimensi.

Pendekatan penyajian laporan keuangan dengan gambar emotikon menjadi suatu alternatif yang diharapkan dapat meningkatkan proses pengambilan keputusan dengan lebih baik. Hal ini disebabkan karena gambar emotikon jauh lebih mudah dipahami daripada tabel dan paparan angka yang rumit.

Penelitian tentang penggunaan emotikon masih terbatas. Pengujian efektivitas dari tampilan laporan keuangan ini belum banyak dilakukan, sehingga masih terbuka lebar untuk penelitian lebih lanjut. Penelitian ini bertujuan untuk menguji ketepatan (efektivitas) dan kecepatan waktu (efisiensi) dari penggunaan emotikon dalam penyajian laporan keuangan dan rasio keuangan dalam pengambilan keputusan dibandingkan dengan penyajian laporan keuangan dan rasio keuangan dengan format konvensional.

1.2. PERMASALAHAN PENELITIAN

Pengambilan keputusan bisnis berdasarkan laporan keuangan perusahaan menjadi sangat penting. Kemampuan analisis pengambil keputusan beragam karena tidak semua berlatar belakang pendidikan akuntansi sehingga menjadi keterbatasan dalam pengambilan keputusan bahkan bisa berujung pada keputusan yang salah.

Penyajian laporan keuangan konvensional yang berbasis teks menjadikan keterbatasan dalam pengambilan keputusan secara akurat (efektif) dan cepat (efisien). Alternatif penyajian laporan keuangan menggunakan emotikon dalam pelaporan keuangan dan rasio keuangan akan memudahkan dalam mengambil keputusan dan lebih cepat.

1.3.TUJUAN KHUSUS PENELITIAN

Kompleksitas penyajian dan pemahaman laporan keuangan seharusnya dapat disederhanakan sehingga pengambil keputusan dapat mengambil keputusan secara akurat (efektif) dan cepat (efisien). Penyederhanaan penyajian laporan keuangan dalam pelaporan keuangan menggunakan pendekatan emotikon diharapkan dapat mengurangi kompleksitas memudahkan pemahaman.

Tujuan khusus penelitian adalah sebagai berikut:

- a. Melakukan analisis kecepatan dan keakuratan pengambilan keputusan berdasarkan laporan keuangan konvensional dibandingkan dengan berdasarkan penyajian laporan keuangan berbasis emotikon.
- b. Mendidik pengambil keputusan untuk dapat mempelajari laporan keuangan dengan lebih mudah dan tepat.
- c. Mensosialisasikan penggunaan penyajian laporan keuangan berbasis emotikon kepada para pengambil keputusan yang tidak berlatar belakang pendidikan akuntansi.

Tujuan penelitian tahun pertama:

- a. Mengidentifikasi faktor-faktor yang mendasari pengambilan keputusan suatu bisnis.
- b. Mengembangkan model laporan keuangan berbasis emotikon untuk digunakan dalam eksperimen dibandingkan dengan model laporan keuangan berbasis konvensional.
- c. Melakukan eksperimen pengambilan keputusan berdasarkan model laporan keuangan berbasis emotikon dan model laporan keuangan berbasis konvensional dengan sampel pengambil keputusan dari dalam negeri.
- d. Menganalisis hasil eksperimen laporan keuangan berbasis emotikon dan berbasis konvensional.
- e. Mensosialisasikan hasil analisis eksperimen laporan keuangan berbasis emotikon dan berbasis konvensional ke dalam forum kajian ilmiah internasional (*call for paper*).
- f. Menulis dan mempublikasikan laporan penelitian dan artikel analisis eksperimen berbasis emotikon dan berbasis konvensional ke jurnal internasional bereputasi.

Tujuan penelitian tahun kedua:

- a. Mengembangkan model dengan memperbaiki instrumen model yang dihasilkan ditahun pertama menjadi berbasis internet (*web*).
- b. Melakukan eksperimen pengambilan keputusan berdasarkan model pelaporan keuangan berbasis emotikon (internet) dan model pelaporan keuangan konvensional dengan sampel pengambil keputusan dari dalam dan luar negeri.
- c. Menganalisis hasil eksperimen laporan keuangan berbasis emotikon dan berbasis konvensional.
- d. Mensosialisasikan hasil analisis eksperimen laporan keuangan berbasis emotikon dan berbasis konvensional ke dalam forum kajian ilmiah internasional (*call for paper*).
- e. Menulis dan mempublikasikan laporan penelitian dan artikel analisis eksperimen berbasis emotikon dan berbasis konvensional ke jurnal internasional bereputasi.
- f. Menulis dan mempublikasikan buku tentang hasil penelitian analisis eksperimen berbasis emotikon dan berbasis konvensional.

1.4.PENERAPAN HASIL KEGIATAN

Penelitian ini penting untuk dilakukan karena dapat menjadi alternatif solusi dari stagnasi bentuk penyajian laporan keuangan yang terlalu kompleks. Adanya kesenjangan informasi yang relevan dengan kebutuhan untuk pengambilan keputusan perlu dijumpai dengan suatu penyajian yang mudah dipahami tetapi tidak mengurangi kandungan informasi yang relevan.

Penelitian ini dapat diterapkan bagi pemilik perusahaan (investor) untuk menilai kinerja investasinya, manajer untuk melakukan analisis kinerja, pembuat standar akuntansi untuk penyederhanaan konten informasi keuangan yang kompleks dan bagi akademisi untuk sumbangsih pengembangan ilmu pengetahuan dengan relevansi pada dunia praktek.

TABEL 1
KONTRIBUSI PENELITIAN

Pihak	Kontribusi
Investor	Mempermudah penilaian kinerja investasinya
Manajer	Melakukan analisis kinerja dengan cepat dan tepat
Pembuat Standar	Penyederhanaan penyajian konten yang kompleks
Akademisi	Pengembangan ilmu pengetahuan sejalan dengan relevansi pada dunia praktik

1.5.LUARAN

Luaran wajib penelitian ini adalah

- a. publikasi satu artikel ilmiah per tahun dalam jurnal internasional bereputasi
- b. satu buku ajar sesuai bidang kompetensi yang diterbitkan

Luaran tambahan penelitian ini adalah

- a. artikel ilmiah dimuat di prosiding internasional terindeks
- b. pemakalah dalam temu ilmiah internasional

TABEL 2
RENCANA TARGET CAPAIAN TAHUNAN

No	Jenis Luaran				Indikator Capaian	
	Kategori	Sub Kategori	Wajib	Tambahan	2018	2019
1	Artikel ilmiah dimuat di jurnal	Internasional Bereputas	ada	tidak ada	published	published
		Nasional Terakreditasi	tidak ada	tidak ada	tidak ada	tidak ada
2	Artikel ilmiah dimuat di prosiding	Internasional Terindeks	tidak ada	ada	sudah dilaksanakan	sudah dilaksanakan
		Nasional	tidak ada	tidak ada	tidak ada	tidak ada
3	Invited Speaker dalam temu ilmiah	Internasional	tidak ada	ada	sudah dilaksanakan	sudah dilaksanakan
		Nasional	tidak ada	ada	tidak ada	tidak ada
4	Visiting Lecturer	Internasional	tidak ada	tidak ada	tidak ada	tidak ada
5	Hak Kekayaan Intelektual	Paten	tidak ada	tidak ada	tidak ada	tidak ada
		Paten Sederhana	tidak ada	tidak ada	tidak ada	tidak ada
		Hak Cipta	tidak ada	tidak ada	tidak ada	tidak ada
		Merek Dagang	tidak ada	tidak ada	tidak ada	tidak ada
		Rahasia Dagang	tidak ada	tidak ada	tidak ada	tidak ada
		Desain Produk Industri	tidak ada	tidak ada	tidak ada	tidak ada
		Indikasi Geografis	tidak ada	tidak ada	tidak ada	tidak ada
		Perlindungan Varietas Tanaman	tidak ada	tidak ada	tidak ada	tidak ada
		Perlindungan Topografi Sirkuit Terpadu	tidak ada	tidak ada	tidak ada	tidak ada
		6	Teknologi Tepat Guna		tidak ada	tidak ada
7	Model/Purwarupa/Desain/Karya Seni/Rekayasa Sosial		tidak ada	tidak ada	tidak ada	tidak ada
8	Buku Ajar (ISBN)		ada	tidak ada	draf	sudah tert
9	Tingkat Kesiapan Teknologi (TKT)		ada	tidak ada	2	3

1.6. BATASAN PENELITIAN

Penelitian dilaksanakan selama dua tahun yaitu tahun 2018 dan 2019. Penelitian ini menggunakan data primer yang berupa penelitian eksperimen. Eksperimen dilakukan dalam dua tahap. Kategori partisipan dalam penelitian ini terbagi menjadi dua, yaitu: mahasiswa yang telah menempuh mata kuliah manajemen keuangan dan/atau pasar modal untuk eksperimen pertama, dan partisipan dalam eksperimen tahap kedua adalah investor pasar modal, pengguna laporan keuangan (manajemen), praktisi dan akademik yang tidak berlatar belakang pendidikan akuntansi. Penelitian tahun pertama dilaksanakan di Indonesia dan tahun kedua akan menggunakan responden yang berasal dari dalam dan luar negeri.

BAB 2

TINJAUAN PUSTAKA

2.1. STUDI PUSTAKA

Penelitian tentang masalah peningkatan komunikasi melalui penyajian laporan keuangan masih sangat sedikit. Data akuntansi kebanyakan berisi data multivarians. Penyajian tradisional biasanya sangat kompleks dan tidak mengintegrasikan kinerja keuangan secara menyeluruh. Pembaca diharapkan dapat menganalisis dan membuat kesimpulan sendiri terhadap data tersebut. Kemampuan analisis pembaca menjadi hal yang sangat menentukan dalam penilaian kinerja perusahaan berdasarkan laporan keuangan. Alternatif presentasi dapat menjadi jalan tengah untuk mengatasi kompleksitas penyajian laporan keuangan.

Tujuan laporan keuangan adalah memberikan informasi mengenai posisi keuangan, kinerja keuangan, dan arus kas entitas yang bermanfaat bagi sebagian besar kalangan pengguna laporan keuangan dalam pengambilan keputusan ekonomi. Laporan keuangan perlu dianalisis guna mendukung pengambilan keputusan. Analisis laporan keuangan merupakan suatu proses analisa, memberikan penilaian untuk mengevaluasi posisi keuangan dan hasil operasi perusahaan pada saat ini dan masa lalu sehingga dapat diprediksikan kondisi dan kinerja perusahaan pada masa yang akan datang (Kusuma, 2016).

Analisis rasio keuangan adalah alat analisis yang menunjukkan indikator keuangan yang membantu menggambarkan pola perubahan dan risiko serta dapat diperbandingkan antar perusahaan. Rasio keuangan mempermudah penilaian kinerja suatu perusahaan. Penelitian yang menjadi landasan penelitian-penelitian lain dalam rasio keuangan adalah Altman (1968) yang menggunakan rasio keuangan untuk memprediksi kebangkrutan perusahaan. Penelitian selanjutnya dilakukan Novita (2003) dan Sudarini (2005) yang menguji kegunaan rasio keuangan untuk memprediksi laba pada masa yang akan datang.

Analisis rasio keuangan pada dasarnya terdiri atas dua macam perbandingan, yaitu:

1. Dengan cara membandingkan rasio-rasio keuangan dari satu perusahaan tertentu dengan rasio-rasio keuangan yang sama dari perusahaan lain yang sejenis atau industri (rasio industri) dalam waktu yang sama.

2. Dengan cara membandingkan rasio-rasio waktu-waktu tertentu dengan rasio-rasio dari waktu-waktu sebelumnya dari perusahaan yang sama. Cara ini akan memberikan informasi perubahan rasio dari waktu ke waktu sehingga bisa diketahui perkembangannya dan dapat untuk proyeksi pada masa yang akan datang.

Adapun kelompok-kelompok rasio yang digunakan dalam analisis laporan keuangan disesuaikan dengan kepentingan pihak kreditur, investor, dan manajemen. Secara umum pengelompokan rasio adalah berdasarkan: 1) rasio *leverage*, 2) rasio aktivitas, dan 3) rasio profitabilitas. Di samping itu, ada pengelompokan rasio dengan cara yang lain, yaitu pengelompokan: 1) rasio-rasio neraca, 2) rasio-rasio laporan rugi laba, dan 3) rasio-rasio antar laporan (kombinasi antara rasio neraca dan laporan rugi laba) (Horne dan Wachowics, 2009).

Likuiditas adalah tingkat kemampuan perusahaan untuk memenuhi kewajibannya yang harus segera dipenuhi. Dengan kata lain, likuiditas adalah menunjukkan tingkat kemampuan perusahaan untuk membayar utang-utang jangka pendek yang dimiliki (Brigham et al., 2014)). Dua faktor yang digunakan dalam rasio-rasio likuiditas untuk mengukur likuiditas perusahaan adalah aktiva lancar dan utang lancar. Apabila perusahaan dinilai memiliki cukup kemampuan untuk memenuhi kewajiban jangka pendeknya maka perusahaan itu dapat disebut likuid. Sebaliknya, jika perusahaan dalam keadaan tidak mampu memenuhi kewajiban jangka pendeknya maka dikatakan ilikuid. Rasio likuiditas terdiri dari rasio lancar (*current ratio*), rasio cepat (*quick ratio*), rasio kas (*cash ratio*) dan inventory to net working capital. Rasio ini adalah salah satu rasio yang sering digunakan oleh perusahaan (Horne dan Wachowics, 2009).

Rasio solvabilitas atau leverage ratio merupakan rasio yang digunakan untuk mengukur sejauh mana aktiva perusahaan dibiayai dengan utang. Rasio solvabilitas (*leverage*) terdiri dari rasio hutang terhadap total aktiva (*debt to assets ratio*), rasio hutang terhadap ekuitas (*debt to equity ratio*) dan long-term debt to equity ratio (Ross et al, 2016).

Rasio profitabilitas suatu perusahaan menunjukkan kemampuan suatu perusahaan untuk menghasilkan laba dengan modal yang ditanamkan di dalam perusahaan tersebut. Rasio

profitabilitas terdiri dari *net profit margin*, hasil pengembalian investasi (*return on investment*) dan hasil pengembalian ekuitas (*return on equity*).

2.1.1. PENELITIAN TERDAHULU TENTANG PENGGUNAAN FORMAT PENYAJIAN KEUANGAN BERBASIS EMOTIKON

Pembaca laporan keuangan menggunakan waktu lebih cepat dan secara efektif dapat menginterpretasikan informasi akuntansi berdasarkan laba perusahaan, likuiditas, dan *leverage* menggunakan format wajah semantik dibandingkan dengan cara konvensional berdasarkan rasio keuangan dan data keuangan (Kartadjumena, Jayanti dan Hadi, 2015 dan Smith, Taffler, and White, 2002)

Ratnatunga (2016) menyatakan bahwa auditor tidak perlu lagi hanya memberikan satu opini yang benar dan wajar atas suatu laporan keuangan tetapi dapat diganti dengan memberikan emotikon pada beberapa rasio keuangan yang penting yang menunjukkan capaian kinerja suatu perusahaan. Emotikon yang digunakan dapat berupa wajah tersenyum untuk kinerja di atas rata-rata.

2.1.2. PENELITIAN TERDAHULU YANG DILAKUKAN OLEH TIM PENELITIAN

Artikel-artikel dan hasil penelitian sebelumnya yang ditulis oleh peneliti dan sangat terkait dengan penelitian ini yaitu mengenai model penyajian analisis laporan keuangan dan rasio keuangan. Analisis likuiditas, sebagai bagian dari analisis laporan keuangan, kita dapat melihat kebijakan modal kerja yang dilakukan oleh perusahaan. Kebijakan modal kerja berpengaruh terhadap kinerja perusahaan (Miswanto, 2012, 2014). *Market timing* adalah salah satu teori struktur modal. Dalam analisis laporan keuangan, keputusan struktur modal dapat dilihat melalui rasio-rasio *leverage* (Miswanto, 2012, 2013, 2016, 2017). Salah satu manfaat dari analisis rasio keuangan adalah dapat digunakan untuk perencanaan *capital budgeting*. Langkah utama dalam *capital budgeting* adalah pengestimasi aliran kas dan teknik penilaian usulan investasi (2013). Dengan memanfaatkan laporan keuangan, perusahaan dapat menganalisis risiko-risiko tersebut, baik pada risiko bisnis maupun risiko pendanaannya (2013).

Kinerja perusahaan yang unggul karena memenangkan pelaporan keuangan tahunan terbaik oleh Ikatan Akuntan Indonesia dan CEO terbaik dilakukan analisis terhadap *Return on Equity* (ROE) dan *Return on Asset* (ROA) memiliki perbedaan signifikan dibandingkan perusahaan terbuka lainnya yang tidak memenangkan penghargaan tersebut (Kusumasari, 2015).

Anggoro (2013) melakukan eksperimen pengaruh pendidikan profesi akuntan, pengalaman, gender dan religiositas terhadap kualitas audit menunjukkan terdapat pengaruh positif latar belakang pendidikan dan pengalaman terhadap kemampuan menemukan adanya salah saji. Variabel religiositas juga menunjukkan pengaruh positif signifikan terhadap ketersediaan partisipan dalam melaporkan temuan salah saji.

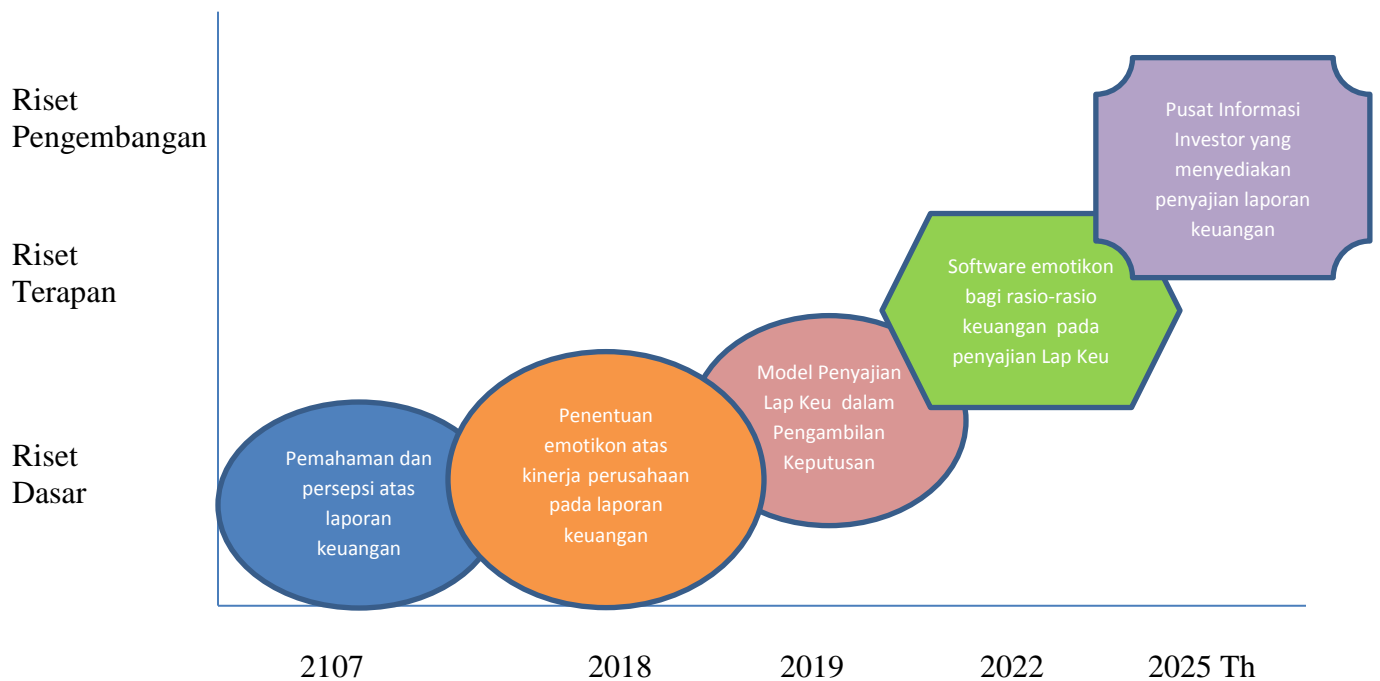
Upaya dalam meningkatkan kebermanfaatan dan relevansi pelaporan keuangan dilakukan oleh perusahaan melalui media internet. Namun demikian publikasi tersebut masih memiliki beberapa keterbatasan yang menghambat kebermanfaatan dan relevansinya. Penggunaan internet dalam pelaporan keuangan memberikan kemudahan diseminasi informasi ke pengguna, akan tetapi belum sepenuhnya menjawab permasalahan pelaporan yang pertama karena masih memunculkan masalah baru dalam proses pengauditan (Anggoro, 2004). Bagi pengguna laporan keuangan berbasis internet yang menggunakan bahasa pemrograman tingkat tinggi (*hypertext business reporting language* maupun *eXtensible business reporting language*) masih memerlukan kemampuan atau pengetahuan khusus bidang akuntansi dan bisnis sehingga pengambil keputusan tetap harus menunggu informasi dari analis (Anggoro, 1998).

Analisis laporan keuangan dana kampanye yang disusun oleh bendaharawan partai politik di lapangan memiliki banyak pemahaman yang berbeda dan transparansi merupakan hal yang sangat penting dalam pelaporan keuangan (Kusumasari, Wardhani, dan Wahyu 2016). Pelatihan terhadap pemahaman pelaporan keuangan kepada bendaharawan partai politik dengan latar belakang pendidikan non akuntansi memberikan hasil yang signifikan. Pelatihan diperlukan dan sangat berguna bagi peningkatan pengetahuan dan ketrampilan peserta dalam pemahaman dan penyusunan laporan keuangan (Kusumasari, 2016).

2.2. PETA JALAN PENELITIAN

Peneliti yang terdiri dari bidang manajemen dan akuntansi pada saat ini telah melakukan beberapa penelitian dasar yang dapat menjadi kolaborasi kuat sebagai landasan dalam pengembangan penelitian-penelitian selanjutnya. Perbedaan bidang manajemen dan akuntansi saling bersinergi karena penelitian yang berfokus pada rasio-rasio keuangan dilakukan oleh Miswanto di bidang manajemen sedangkan Rusmawan menggunakan metode eksperimen untuk pengaruh latar belakang pendidikan, tekanan waktu dan sanksi hukum terhadap skeptisisme profesional auditor dan penelitian bidang pemanfaatan web/internet untuk diseminasi informasi. Penelitian eksperimen menjadi hal krusial karena penelitian model penyajian laporan keuangan juga menggunakan pendekatan metode eksperimen berbasis web. Lita mendalami penelitian tentang kegunaan rasio keuangan bagi kinerja keuangan serta pemahaman pembuatan laporan keuangan oleh bendaharawan berlatar belakang pendidikan akuntansi. Hal ini sesuai dengan tema penelitian ini yang menekankan pada penggunaan laporan keuangan oleh pengambil keputusan non akuntansi. Peta jalan penelitian apabila digambarkan akan tampak seperti pada gambar 1.

GAMBAR 1
PETA JALAN PENELITIAN



2.3. URAIAN KEGIATAN

Penelitian ini dimulai dari beberapa studi pustaka tentang penggunaan wajah skematik (emotikon) sebagai format komunikasi alternative dari penyampaian informasi akuntansi. Belum banyak penelitian tentang hal ini dan mengingat perkembangan teknologi yang semakin maju maka peneliti memiliki gagasan untuk mengembangkan lebih jauh sehingga informasi akuntansi akan dapat diterima secara mudah dan relevan dalam pengambilan keputusan.

Pada tahun pertama penelitian (2018) akan dilakukan hal-hal berikut ini:

1. Studi pustaka yang lebih mendalam
2. Pemerolehan beberapa gambaran emotikon yang dapat mewakili kinerja perusahaan
3. Penentuan emotikon melalui forum group discussion yang dihadiri para ahli akuntansi, computer dan investor.
4. Pembuatan pilot eksperimen yang telah menggabungkan emotikon dengan penyajian laporan keuangan
5. Lima puluh partisipan mencoba pilot eksperimen dengan hasil pilot eksperimen dianalisis dan diperbaiki
6. Dilakukan eksperimen secara terbuka kepada partisipan dalam negeri
7. Hasil penelitian menjadi model penyajian keuangan dalam pengambilan keputusan yang efektif dan efisien.
8. Hasil penelitian disajikan dalam pertemuan ilmiah internasional dan diterbitkan dalam jurnal internasional bereputasi.

Pada tahun kedua (2019) akan dilakukan hal-hal berikut ini

1. Model eksperimen akan diujicobakan kepada partisipan luar negeri untuk mengukur tingkat universalitasnya (model eksperimen berbasis web)
2. Hasil penelitian akan dianalisis dan diperbandingkan antara hasil dalam negeri dan luar negeri.
3. Hasil penelitian disajikan dalam pertemuan ilmiah internasional dan diterbitkan dalam jurnal internasional bereputasi.

4. Hasil penelitian akan dituliskan menjadi buku yang berguna sebagai bahan ajar maupun dijual kepada pengambil keputusan secara bebas.

Uraian kedua kegiatan tersebut dirangkum dalam gambar 2 seperti di bawah ini.

GAMBAR 2
URAIAN KEGIATAN



2.4. URAIAN KEBARUAN

Penelitian ini berbeda dengan penelitian-penelitian sebelumnya dalam hal:

1. Pemilihan emotikon yang lebih komprehensif melalui FGD
2. Eksperimen dilaksanakan untuk partisipan dalam negeri dan luar negeri
3. Eksperimen berbasis web sehingga lebih akurat dalam perhitungan waktu untuk menunjang tujuan efisiensi
4. Eksperimen tidak terbatas hanya pada prediksi kebangkrutan suatu perusahaan tetapi kinerja perusahaan secara menyeluruh.

BAB 3 TUJUAN DAN MANFAAT PENELITIAN

3.1. TUJUAN KHUSUS PENELITIAN

Kompleksitas penyajian dan pemahaman laporan keuangan seharusnya dapat disederhanakan sehingga pengambil keputusan dapat mengambil keputusan secara akurat (efektif) dan cepat (efisien). Penyederhanaan penyajian laporan keuangan dalam pelaporan keuangan menggunakan pendekatan emotikon diharapkan dapat mengurangi kompleksitas memudahkan pemahaman.

Tujuan khusus penelitian adalah sebagai berikut:

- a. Melakukan analisis kecepatan dan keakuratan pengambilan keputusan berdasarkan laporan keuangan konvensional dibandingkan dengan berdasarkan penyajian laporan keuangan berbasis emotikon.
- b. Mendidik pengambil keputusan untuk dapat mempelajari laporan keuangan dengan lebih mudah dan tepat.
- c. Mensosialisasikan penggunaan penyajian laporan keuangan berbasis emotikon kepada para pengambil keputusan yang tidak berlatar belakang pendidikan akuntansi.

Tujuan penelitian tahun pertama:

- a. Mengidentifikasi faktor-faktor yang mendasari pengambilan keputusan suatu bisnis.
- b. Mengembangkan model laporan keuangan berbasis emotikon untuk digunakan dalam eksperimen dibandingkan dengan model laporan keuangan berbasis konvensional.
- c. Melakukan eksperimen pengambilan keputusan berdasarkan model laporan keuangan berbasis emotikon dan model laporan keuangan berbasis konvensional dengan sampel pengambil keputusan dari dalam negeri.
- d. Menganalisis hasil eksperimen laporan keuangan berbasis emotikon dan berbasis konvensional.
- e. Mensosialisasikan hasil analisis eksperimen laporan keuangan berbasis emotikon dan berbasis konvensional ke dalam forum kajian ilmiah internasional (*call for paper*).

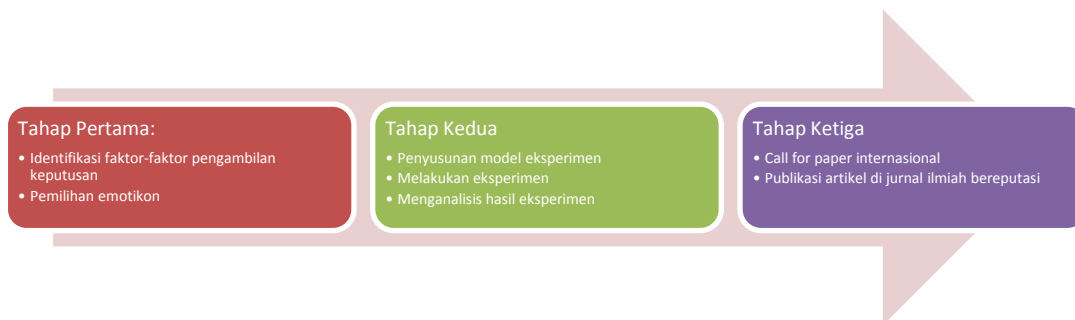
- f. Menulis dan mempublikasikan laporan penelitian dan artikel analisis eksperimen berbasis emotikon dan berbasis konvensional ke jurnal internasional bereputasi.

Tujuan penelitian tahun kedua:

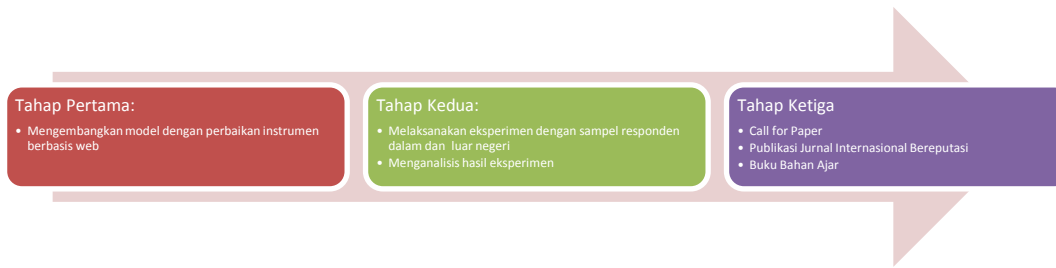
- a. Mengembangkan model dengan memperbaiki instrumen model yang dihasilkan ditahun pertama menjadi berbasis internet (*web*).
- b. Melakukan eksperimen pengambilan keputusan berdasarkan model pelaporan keuangan berbasis emotikon (internet) dan model pelaporan keuangan konvensional dengan sampel pengambil keputusan dari dalam dan luar negeri.
- c. Menganalisis hasil eksperimen laporan keuangan berbasis emotikon dan berbasis konvensional.
- d. Mensosialisasikan hasil analisis eksperimen laporan keuangan berbasis emotikon dan berbasis konvensional ke dalam forum kajian ilmiah internasional (*call for paper*).
- e. Menulis dan mempublikasikan laporan penelitian dan artikel analisis eksperimen berbasis emotikon dan berbasis konvensional ke jurnal internasional bereputasi.
- f. Menulis dan mempublikasikan buku tentang hasil penelitian analisis eksperimen berbasis emotikon dan berbasis konvensional.

GAMBAR 3
PETA JALAN PENELITIAN

Tahun pertama



Tahun kedua



3.2.MANFAAT PENELITIAN

Penelitian ini bermanfaat bagi perkembangan ilmu pengetahuan khususnya akuntansi dalam bidang penyajian laporan keuangan menggunakan emotikon. Hasil dari penelitian ini dapat menambah kebaruan dalam efisiensi dan efektivitas penyajian laporan keuangan dari hasil-hasil penelitian sebelumnya. Perbedaan terletak pada penggunaan emotikon yang merupakan pengembangan praktis dari wajah skematik yang sudah dikembangkan oleh Chernoff (1971).

Bagi pengguna laporan keuangan apabila penelitian ini berhasil dan diterapkan secara luas maka akan mempermudah cara membaca laporan keuangan dan mempercepat melakukan analisa laporan keuangan dibandingkan cara tradisional yang selama ini telah dilakukan. Pengguna menjadi mudah karena emotikon adalah suatu gambar yang telah berterima secara luas apalagi ditambahkan pengetahuan akuntansi akan menjadi sangat berdaya.

Praktisi akan sangat terbantu dalam menyajikan atau pun melakukan analisis laporan keuangan. Perbandingan kinerja antar perusahaan, kinerja antar tahun, kinerja antar industri menjadikan mudah diterjemahkan.

BAB 4 METODE PENELITIAN

4.1. PENDEKATAN TEORITIK

Metodologi penelitian model penyajian pelaporan keuangan dalam pengambilan keputusan yang efektif dan efisien menggunakan pendekatan eksperimen dengan melibatkan subyek penelitian di tahun pertama dari kota di Yogyakarta dan Jakarta sedangkan di tahun kedua melibatkan subyek di luar negeri.

4.1.1. SUBJEK PENELITIAN

Subjek yang digunakan dalam penelitian ini adalah partisipan yang telah memenuhi syarat memiliki pengetahuan tentang manajemen keuangan atau analisis investasi. Partisipan tahapan pertama adalah mahasiswa yang berasal dari beberapa kampus di wilayah Indonesia. Partisipan eksperimen tahapan kedua berasal dari beberapa negara.

4.1.2. METODE

Penelitian ini dilakukan dalam dua tahapan. Tahapan pertama dilakukan pemilihan emotikon yang mudah dikenali (*eye catching*) dan merepresentasi informasi dalam laporan keuangan. Pendekatan *focus group discussion* (FGD) digunakan dalam tahapan ini mengingat diperlukan pengetahuan khusus dan umum untuk memilih emotikon. Emotikon terpilih digunakan untuk merancang model pelaporan keuangan yang mudah digunakan (*user friendly*) dan digunakan sebagai instrumen dalam penelitian tahap kedua dengan eksperimen. Disain eksperimen 2×2 *between subject* dipilih untuk memenuhi tujuan penelitian. Variabel independen terdiri atas latar belakang pendidikan (akuntansi/bisnis dan non-bisnis) dan laporan keuangan konvensional dan laporan keuangan berbasis gambar (*emoticon*). Setiap kelompok masing-masing mendapatkan semua level perlakuan yang sama secara acak. Penggunaan teknik ini diharapkan mampu menurunkan galat eksperimental (Nahartyo, 2012).

Variabel dependen dalam eksperimen tahap pertama adalah kemudahan/kegunaan informasi dalam pengambilan keputusan. Variabel dependen untuk eksperimen tahap kedua adalah ketepatan penilaian investasi menggunakan laporan keuangan berbasis gambar.

a. Tugas dan Prosedur

Mengingat sifat tugas yang harus dilakukan oleh partisipan, maka eksperimen dirancang menggunakan bantuan perangkat lunak komputer (*computer-based*) dan dilakukan dalam dua tahapan. Tahap pertama menggunakan partisipan dalam negeri sedangkan eksperimen tahap kedua melibatkan partisipan luar negeri. Tugas dan prosedur eksperimen tahap pertama disajikan pada Tabel 2.1. dan tahap kedua disajikan dalam Tabel 2.2. Materi eksperimen terdiri dari tiga bagian dan waktu yang diperlukan untuk mengikuti semua tahapan eksperimen kurang lebih 45 menit.

Setiap peserta juga menerima *handout* materi penilaian dasar investasi. Materi berisi berbagai rasio keuangan dan makna serta kegunaannya dalam menilai kinerja perusahaan. Tujuan pemberian materi ini untuk mengingatkan kembali dan membekali partisipan dengan pengetahuan dasar yang diperlukan untuk mengikuti dan mengerjakan tugas dalam tahapan eksperimen.

Eksperimen dimulai dengan pemberian penjelasan singkat mengenai prosedur dan tahapan eksperimen. Setiap partisipan menempati tempat duduk dengan satu set komputer yang telah berisi: 1) instruksi untuk kasus, 2) latar belakang perusahaan hipotetis, laporan keuangan, dan informasi mengenai penilaian investasi, 3) daftar pertanyaan, termasuk pertanyaan demografi.

TABEL 3
Tahapan Eksperimen-*computer based*

Langkah 1	Setiap partisipan diberi <i>handout</i> materi penilaian-penilaian dasar dalam investasi dan diberi waktu ± 15 menit untuk memahami.
Langkah 2	Petugas pelaksana eksperimen mengkonfirmasi pemahaman partisipan dan memberikan kesempatan apabila ada pertanyaan. (5 menit)
Langkah 3	Setiap partisipan diminta mengakses modul dikomputer yang berisi informasi singkat: latar belakang perusahaan, laporan keuangan parsial, informasi relevan untuk keputusan investasi (informasi konvensional/emotikon). Partisipan diminta memberikan penilaian atas kinerja 10 perusahaan (tampilan konvensional/tampilan emotikon). (20 menit)
Langkah 4	Hasil penilaian partisipan diberi skor secara otomatis oleh program Komputer menggunakan skala (likert): sangat baik (5), baik (4), netral (3), buruk (2), sangat buruk (1). (5 menit)

TABEL 4

Tahapan Eksperimen-*internet based*

Langkah 1	Setiap partisipan diberi <i>handout</i> materi penilaian-penilaian dasar dalam investasi melalui link yang dikirim ke <i>e-mail</i> dan diberi waktu ± 15 menit untuk memahami.
Langkah 2	Setelah 15 menit program akan memunculkan tombol pilihan dan meminta untuk merespon dengan meng-klik "lanjut/ <i>continue</i> " apabila telah siap untuk melanjutkan ke tahap berikutnya.
Langkah 3	Menu yang berisi informasi singkat: latar belakang perusahaan, laporan keuangan parsial, informasi relevan untuk keputusan investasi (informasi konvensional/emotikon) akan muncul ketika "lanjut/ <i>continue</i> " dipilih.
Langkah 4	Partisipan diminta memberikan penilaian atas kinerja 10 perusahaan (tampilan konvensional/tampilan emotikon).
Langkah 5	Hasil penilaian partisipan diberi skor secara otomatis oleh program komputer menggunakan skala (likert): sangat baik (5), baik (4), netral (3), buruk (2), sangat buruk (1).

b. Manipulasi

Manipulasi dilakukan terhadap bentuk penyajian informasi keuangan berupa gambar-gambar (*emoticon*) untuk menggantikan beberapa komparasi, tren dan rasio keuangan (model konvensional) agar lebih mudah dipahami dan digunakan.

Setiap partisipan secara acak diberi penugasan ke dalam subkelompok perlakuan (*random assignment*). Semua partisipan dalam setiap subkelompok diberi informasi bahwa hasil pekerjaan mereka akan direview pihak independen untuk menilai kualitas pekerjaannya. Partisipan yang mengikuti eksperimen hingga akhir dan kinerja investasinya baik akan menerima cinderamata menarik.

4.2. SAMPEL

Penelitian ini menggunakan metode kuantitatif berbasis kuesioner. Metode purposive sampling ditempuh dengan pemilihan responden yang berasal dari mahasiswa akuntansi dan manajemen yang telah mengambil mata kuliah akuntansi pengantar dan manajemen keuangan. Kedua kelas ini biasanya ditempuh pada semester 2 dan 3. Kuesioner didistribusikan setelah mahasiswa belajar pada kelas akuntansi dan manajemen. Ada 133

kuesioner yang didistribusikan tetapi hanya 110 yang dikembalikan. Tingkat kembalian sebesar 82.70%.

Demografi responden terdiri dari 77 mahasiswa akuntansi dan 33 mahasiswa manajemen. Masa studi rata-rata pada saat pengisian kuesioner adalah 2,88 tahun. Rata-rata masa studi menunjukkan bahwa mahasiswa tersebut sesuai dengan target responden yang telah memiliki pemahaman akuntansi pengantar dan manajemen keuangan. Umur rata-rata responden adalah 20.72 tahun.

Kuesioner dibagi ke dalam lima pertanyaan yang mencakup laba bersih, rasio lancar, rasio solvabilitas, rasio tingkat kembalian, dan laba per lembar saham. Responden akan menerima satu set pertanyaan dalam bentuk perhitungan biasa dan satu set pertanyaan dalam bentuk emotikon. Satu set diberikan terlebih dahulu setelah selesai dikerjakan dan dikembalikan maka akan diberikan set pasangan satunya lagi untuk dikerjakan.

4.3.HASIL PENELITIAN

Hasil dari kuesioner kemudian diolah menggunakan alat statistik T-test pair sample untuk melakukan analisis statistika antara hasil konvensional dan emotikon. Rata-rata jawaban benar untuk metode konvensional sebesar 82,73 sedangkan untuk model emotikon sebesar 88,18. Nilai emotikon lebih tinggi dibandingkan konvensional karena memiliki tingkat kesalahan lebih rendah. Hasil dapat dilihat pada tabel 5.

TABEL 5
STATISTIKA DESKRIPTIF

Keterangan	Rata-rata	N	Standar Deviasi	Standar Error
Konvensional	82,73	110	19,437	1,853
Semantik	88,18	110	18,433	1,757

Kondisi di atas lebih diperjelas lagi dari hasil T-test pair sample. Diketahui bahwa dari perhitungan diperoleh nilai signifikansi 0,000 yang lebih kecil dari alpha 0,05. Dapat disimpulkan bahwa H_0 ditolak dan H_a diterima yaitu informasi keuangan yang disajikan menggunakan emotikon memiliki tingkat kesalahan lebih rendah dibandingkan saat disajikan menggunakan metode konvensional seperti terlihat pada tabel 6.

TABEL 6
HASIL SIGNIFIKANSI

Pasangan	N	Korelasi	Signifikansi
Konvensional dan Emotikon	110	0,408	0,000

Ketika kita melihat bahwa hasil perhitungan t-test senilai 2,775 yang lebih besar dari t tabel 1,645 dengan tingkat $\alpha=5\%$ serta degree of freedom 109 maka dapat kita katakan bahwa H_0 ditolak dan H_a diterima. Dapat disimpulkan bahwa informasi keuangan berupa rasio yang disajikan menggunakan emotikon memiliki tingkat kesalahan lebih rendah dibandingkan disajikan menggunakan metode konvensional. Responden dapat menentukan perusahaan yang memiliki kondisi lebih baik dengan tepat menggunakan emotikon seperti terlihat pada tabel 7.

TABEL 7
HASIL T-TEST

Pasangan	Rata-rata	Deviiasi Standar	Rata-rata Standar Error	t	Signifikansi
Konvensional dan Emotikon	-5,454	20,616	1.966	-2,775	0,0006

Hasil t test dan melihat tingkat signifikansi menunjukkan bahwa H_0 ditolak dan H_a diterima. Informasi keuangan yang disajikan menggunakan emotikon memiliki tingkat kesalahan lebih rendah dibandingkan penyajian menggunakan metode konvensional pada saat menentukan perusahaan yang memiliki kinerja lebih baik. Dapat disimpulkan bahwa metode emotikon lebih efektif dalam pengambilan keputusan dibandingkan metode konvensional.

BAB 5

HASIL DAN LUARAN YANG DICAPAI

5.1. HASIL DAN LUARAN DARI PENERBITAN ARTIKEL

Penelitian ini telah menghasilkan luaran berupa penerbitan artikel:

1. The Effectiveness Between Emoticons and Traditional Figures on Presenting Accounting Informations yang telah dimuat pada International Journal of Engineering & Technology, Special Issue 30, Vol. 7, No. 3.30 (2018) yang dapat diakses pada www.sciencepubco.com/index.php/ijet/issue/view/385 dan dipublikasikan pada tanggal 24-08-2018.
2. The Influence of Historical Market Value of Equity on Capital Structure yang telah dimuat pada International Journal of Engineering & Technology, Special Issue 30, Vol. 7, No. 3.21 (2018) yang dapat diakses pada www.sciencepubco.com/index.php/ijet/issue/view/385 dan dipublikasikan pada tanggal 24-08-2018. Halaman 82-88

5.2. HASIL DAN LUARAN DARI PROCEEDING

Penelitian ini telah menghasilkan luaran berupa proceeding call for paper:

1. The Influence of Historical Market Value of Equity on Capital Structure yang diterbitkan sebagai proceeding of 2018 ICOI the International Conference on Organizational Innovation yang diselenggarakan pada tanggal 7-9 Juli 2018. Editor: Dr. Charles Shieh dan Mr. T. Aria Auliandri

5.3. HASIL DAN LUARAN DARI CALL FOR PAPER

Penelitian ini telah menghasilkan luaran berupa presentasi paper di seminar internasional dengan judul

1. The Effectiveness between Emoticons and Traditional Figures on Presenting Accounting Informations pada 2nd ASIA International Multidisciplinary Conference di Faculty of Management, Universiti Teknologi Malaysia, Johor Bahru pada tanggal 12 Mei 2018.

2. The Influence of Historical Market Value of Equity on Capital Structure pada International Conference of Organizational Innovation di Fukuoka University Japan pada tanggal 7-9 Juli 2018.
3. Analysis The Effect of Capital Structure and Profitability to Dividend Policy on Manufacturing Company Listed in Indonesia Stock Exchange di Hotel Ambarukmo, Yogyakarta, Indonesia pada tanggal 26-28 Juli 2018.

5.4.HASIL DAN LUARAN DARI BUKU

Penelitian ini telah memicu dibuatnya buku ajar yang berdasarkan rasio keuangan yang telah digunakan pada penelitian ini. Pada saat ini buku ajar baru sebatas draft.

BAB 6

RENCANA TAHAPAN BERIKUTNYA

6.1. PENYAJI INTERNASIONAL DAN PENERBITAN ARTIKEL

Tahapan selanjutnya yang akan dilakukan adalah membuat paper baru yang akan dipresentasikan pada seminar internasional dan selanjutnya diharapkan dapat diterbitkan sebagai artikel. Pada tahun ini penelitian penggunaan emotikon dalam penyajian laporan keuangan di dalam negeri akan diselesaikan. Pada tahun depan penelitian akan dilanjutkan untuk penggunaan emotikon di luar negeri sehingga diharapkan hasil yang diperoleh dari penelitian ini menjadi lebih komprehensif.

6.2. PENERBITAN BUKU

Draft buku yang belum diselesaikan akan terus dikerjakan. Diharapkan pada akhir tahun sudah menjadi draft final. Pada tahun depan draft buku kemudian akan dipublikasikan.

BAB 7

KESIMPULAN DAN SARAN

7.1. KESIMPULAN

Hasil uji t test dan melihat tingkat signifikansi menunjukkan bahwa H_0 ditolak dan H_a diterima. Informasi keuangan yang disajikan menggunakan emotikon memiliki tingkat kesalahan lebih rendah dibandingkan penyajian menggunakan metode konvensional pada saat menentukan perusahaan yang memiliki kinerja lebih baik. Dapat disimpulkan bahwa metode emotikon lebih efektif dalam pengambilan keputusan dibandingkan metode konvensional.

Hasil yang didapat sejalan dengan penelitian Smith, Taffler, & White (2002) serta Kartadjuma, Jayanti & Hadi (2011). Metode emotikon lebih sederhana dan mudah dipahami daripada model wajah Chernoff dan Doraemon. Emotikon lebih berterima umum dan memiliki satu ekspresi wajah yang tegas misal senang atau susah sehingga mudah dipahami. Hal ini menjadikan pengambil keputusan menjadi lebih cepat. Wajah Chernoff dan Doraemon harus melakukan analisa terhadap tampilan mata, hidung, mulut, dan alis mata yang menjadi simbol dari likuiditas, laba, dan leverage.

7.2. SARAN

Penelitian selanjutnya dapat diperluas dengan responden yang berasal dari luar negeri. Konsistensi hasil dapat ditelaah lebih lanjut antara responden yang berasal dari dalam negeri dan luar negeri. Perluasan selanjutnya dapat dilakukan bagi responden yang memiliki latar belakang ilmu akuntansi dan keuangan serta responden yang tidak memiliki latar belakang tersebut, sehingga akhirnya dapat dilihat hasilnya secara menyeluruh.

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Lampiran 1. Artikel Ilmiah



The Effectiveness between Emoticons and Traditional Figures on Presenting Accounting Information

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Abstract

Accounting is business language. A language has two components that are symbol and grammatical rule. Accounting information usually presented as the set of procedures for creating financial reports. Based on framework for the preparation and presentation of financial statements, information provided in financial statements are useful to users if it has qualitative characteristics. One of the characteristics is understandability. For this purpose, users are assumed to have a reasonable knowledge of business and economic activities and accounting and a willingness to study the information with reasonable diligence. Accounting information usually presents as numbers and conventional graph. Previous studies suggest that schematic faces is used as alternative communication for accounting information. Existing application of schematic faces is found by Chernoff. In the modern age, people is got used to know emoticon as symbol for communicate easily, so this paper employs emoticon not the Chernoff faces. This research is aimed to know the impacts on the effectiveness between emoticon and traditional figure on presenting accounting information. The analysis of company net income, current ratio, liquidity ratio, return on asset and earning per share are presented in traditional figures and emoticons. Respondent has to find out which company is better performance compare to the other. Method of analysis are descriptive statistic and differential t-test. Respondents are accounting and management students which are taken by purposive random sampling. The result show that respondents have better average score on choosing the better company using emoticon (88.18) compares to traditional figure (82.72). The effectiveness of financial information is also significantly evidenced in emoticons compare to traditional figure.

Keywords: Accounting information, schematic faces, emoticons, decision making, financial statement.

1. Introduction

This Accounting is business language. A language has two components that are symbol and grammatical rule. Accounting information usually presented as the set of procedures for creating financial reports. Based on framework for the preparation and presentation of financial statements, information provided in financial statements are useful to users if it has qualitative characteristics. One of the characteristics is understandability. For this purpose, users are assumed to have a reasonable knowledge of business and economic activities and accounting and a willingness to study the information with reasonable diligence.

Accounting information usually presents as numbers and conventional graph. Complex tabular presentations is hard to be an integration of the key features performance and a segmented multi-column format may leave disaggregation aspects of performance rather than an overall valuation (1). Traditional graph and chart are easily to understand for only two or three dimensions and quickly become over-complicated when multivariate information is employed.

An alternative means of presentation might provide better and more efficient representation, thus complementing existing methods. The pie-chart, bar chart and trend graph have become familiar and acceptable in the financial report as alternatives to the narrative and numerical form. The used of diagrams, charts, graphs and

similar illustrative descriptive can help articulate the role of both financial and non-financial data in accounting system design (2).

The look will not matter toward information, but information is only useful if can be used toward decision making. Based on the premise, this research addresses the relative usefulness of emoticon and financial ratios as information formats for business decision making.

2. Literature Review

People try to valueate company using common measures such as ratios. Based on the ratios, people could valueate the company or make decision as needed.

2.1. Ratios

Financial ratio is information that describing relation between accounts. This information is giving picture of the situation that company is facing. Financial ratios analysis is exploring the financial ratios. Financial ratios are divided into two types:

a. Univariate Ratio Analysis

The analysis is only employing one variant to describe the situation. Return on Asset is dividing Return toward Asset. The ratio has been used extensively to picture the financial performance of company.



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- b. **Multivariate Ratio Analysis**
The analysis is using more than one variants to describe the situation. Based on scope and goal to achieve, the financial ratios are divided into five types (3):
- a. **Liquidity Ratios**
Liquidity ratio is the ability of company to pay the debt in present time. Current ratio and net working capital are the examples. Current ratio is current asset divided with current liability. Net working capital is shown the ability of company to run the business.
- b. **Profitability Ratios**
The ratios are shown the ability of company to generate return. The examples are gross profit margin, net profit margin, operating return on assets, return on assets, return on equity, and operating ratio.
- c. **Solvency Ratios**
Solvency ratio is the ability of company to pay the debt in long term. Sometimes, this ratio is called as leverage ratio because company incurs the debt to generate revenue. Leverage ratios are debt ratio, debt to equity ratio, long-term debt to equity ratio, long term debt to capitalization ratio, times interest earned, cash flow interest coverage, cash flow to net income, and cash return on sales.
- d. **Activity Ratios**
This ratio is describing the company's ability to manage the asset efficiently. The examples are total asset turnover, fixed asset turnover, accounts receivable turnover, inventory turnover, average collection period and day's sales in inventory.
- e. **Market Ratios**
The ratio is describing the value of company in term of return on market based on the stocks. The examples are dividend yields, dividend per share, and price to book value.

2.2. Previous Research

Data become complex and difficult to present graphically. Scholars started to find way to represent multivariate data easily. The research started to flourish when (4) encoded data in facial mapping to help viewers in detecting patterns, groupings, and correlations. It is called Chernoff's faces. It is used to graphically display complex multivariate data (4).

In business, decision making is using complicated sets of multivariate data. Graphic display is one of tools to overcome it. Chernoff's faces have been explored to support the decision making in the different situations. Existing studies in financial environment suggest that they may be superior compare to traditional methods in the communication and decision making qualities.

There were research using Altman model for predicting bankruptcy (5). To measure the efficiently and effectiveness of predicting, employment of schematic faces compare to ratios and financial reports are used. The scholars found out that schematic faces are processed more quickly (efficient) than traditional methods (1,6-8).

Scholars findings on effectiveness are divided into two results. One group agrees that schematic faces are most effective with no loss of accuracy compare to traditional methods (1,8). In the other group, they found out that there is inconsistencies among respondents on error type 2. This error is more concerned because it is failure to stated unhealthy company as healthy company while using Chernoff's schematic faces (6). The different result is found out that financial ratios are the best to put misclassification error type I and II compare to Doraemon schematic faces (7). All the findings could be seen on table 1.

Table 1: Summary of Findings

Authors	Research Findings
Smith, Taffler, & White (2002) (1)	100 MBA Finance Students are required to make failed/non-failed decisions on a group of companies when presented with financial information in the form of simplified accounting statements, financial ratios and schematic cartoon faces. Evidence is provided that schematic faces are processed more quickly than either of the more traditional methods, with no loss of accuracy.
Febrianto & Rafidinal (2006) (6)	The respondents (bachelor students, graduate students, academicians, and practices) are most efficient and effective when they classify accounting information using Chernoff's schematic faces than any forms of conventional accounting information. They are inconsistencies among respondents for error type 2 (unhealthy company stated as healthy company).
Kartadumena, Jayanti, & Hadi, (2011) (8)	Financial report readers in average have a shorter time (efficient) and a smaller deviation (effective) in interpreting accounting information about company's profitability, liquidity, and leverage sent using schematic faces format presentation instead of conventional ones such as financial ratios and financial data.
Oktafiyani (2013) (7)	Using Doraemon face as schematic face to test efficiency and effectiveness to present financial information. The doraemon way is the most efficient on time processing compare to ratios and conventional financial statement. The most effective decision on liquidity, leverage and profitability is ratios. The effectiveness of financial ratios is also significantly evidenced in misclassification (type I and II) compare to others.

Based on the previous researches there are some issues for more considerations:

1. The differences in the number of misclassification errors resulting from the schematic faces compare to ratios and financial statements.
2. The differences in the effectiveness for decision making resulting from the schematic faces compare to ratios and financial statements.
3. The differences of using schematic model between Chernoff's faces to Doraemon to describe multivariate data.

The exploration of schematic faces are varies. This research is using emoticon because more popular compares to Chernoff's faces with the hypothesis:

H₀: Financial information presented using Emoticon has lower errors compare to ratios when declaring better company.

3. Methodology

It is quantitative method using questionnaires. Purposive sampling method is applied. Respondents are business school students from accountancy and management that have taken accounting principle and finance. Both classes are normally taken in second and third semester. It is distributed after class and voluntarily responded. The students have business knowledge about measuring company performance. They are 110 respondents from 133 questionnaires distributed with the return rate is 82.70%.

Respondents are giving questions about respondents profile in term of age, education, and study program. There are 77 from accountancy and 33 from management students. The average study time is 2.88 years. They have basic knowledge of financial performance and ratios. The average age is 20.72 years.

They are five questions in term of net profit, current ratio, solvability ratio, return on asset, and earning per share. Respondent is giving one set of ratio and another set of emoticon. They will give another set after finishing one set.

Respondents are 110 that can be assumed to be normal because more than 30. T-test pair sample is used to analyze the result with descriptive statistics between conventional and emoticon.

4. Result and Findings

The average correct answers using conventional are 82.73 and schematic are 88.18. The schematic value is higher than conventional presentation. Respondents have less errors using schematic compare to conventional (see table 2).

Table 2: Paired Samples Statistics

Pair 1		Mean	N	Standard Deviation	Std. Error Mean
		Conventional	82.7273	110	19.43746
	Schematic	88.1818	110	18.43321	1.75754

Based on the result of T-Test pair sample, the significant value is 0.000 less than $\alpha = 5\%$. It can be concluded that H_0 is rejected. H_a is accepted that financial information presented using Emoticon has lower errors compare to ratios when declaring better company (see table 3).

Table 3: Pair Samples Correlations

Pair 1	N	Correlation	Significance
Conventional & Schematic	110	0.408	0.000

When we look at the t counting is 2.775 is bigger than t value 1.645 on $\alpha = 5\%$ and degree of freedom is 109. It can be concluded that H_0 is rejected. H_a is accepted that financial information presented using Emoticon has lower errors compare to ratios when declaring better company (see table 4).

Table 4: Pair Samples Test

Pair 1	Mean	Std. Deviation	Std. Error Means	t	Sig.
Conventional & Schematic	-5.454	20.616	1.966	-2.775	0.006

Both significant and t test shown that H_0 is rejected and H_a is accepted. Financial information using Emoticon has lower errors compare to ratios when declaring better company. The emoticon faces is more effective to take decision making in term of better company to choose.

The result finding is aligned with (1,8). The emoticon is more simple and popular compare to Chernoff's faces and Doraemon. The emoticon is the ultimate conclusion for happy and sad, so that reader is easier to get conclusion on the better company. The weakness of previous research was the unfamiliar faces with the eyes, nose, mouth and eyebrows that represent of liquidity, profitability and leverage.

It is different finding with (7) that stated the most effective decision on liquidity, leverage, and profitability is ratios (7). There is no inconsistencies among respondents as on (6).

For the next research, the emoticon face should be explore more because they are so many emoticon faces available. The decision making of better company should be expand to fail and non fail company and further on sensivity analysis and others.

5. Conclusions

Based on the finding, there is significantly different between emoticon and ratios presented on decision making. The emoticon is more effective compare to ratios presented. The result finding is aligned with previous research by (1, 8). The emoticon should be explore more on complex decision making that using multivariate information.

Acknowledgement

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Equity Issue and a Long-Term Effect of Equity Market Timing on Capital Structure

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Abstract

After the research about a short term effect of equity market timing on capital structure, the author is motivated to do research about a long term effect of equity market timing on capital structure of the firms which is listed in Indonesia Stock Exchange. The main problems on this research are to understand whether firms use equity market timing theory when issuing equity, and whether equity market timing has a long term effect on its capital structure. Then the purpose of this study is to examine the problems of this research. There are two hypothesis in this research. First, firms use equity market timing when issuing equity, and second, equity market timing has a long term effect on capital structure of firms in Indonesia. This research uses non-financial companies listed on the Indonesia Stock Exchange over the period of 2001 to 2011 as the sample. The data used in this research are panel data. The sample choosing is based on sample non-probability sampling using purposive sampling in form of judgment sampling. The research model used in this study is a distributed-lag regression model. The results of this research show that firms use equity market timing when issuing equity, and equity market timing does not have a long term effect on capital structure of firms in Indonesia. Thus, because there is deviation on the capital structure, then there is an indication that the firms will perform the process of speed adjustment towards the targeted capital structure, the optimum capital structure.

Keywords: Equity issue; capital structure; equity market timing.

1. Introduction

1.1. Background

Baker and Wurgler (1) present capital structure theory that is different from the prior one. They state that market timing theory is contradictory with trade-off and pecking order theories. According to this equity market timing theory, firms issue share equity depending on the relative price. When the price of the equity is higher than the price of other securities, firms tend to issue equity. In other words, this theory suggests that firms tend to issue equity when the market price of equity is higher than the book value of equity, and tend to repurchase equity when the market price is low. Moreover, on the external funding policies, firms tend to do external funding when the equity price is low and tend to debt when otherwise.

Equity market timing has a short and a long-term effect on capital structure (2, 3). A short-term effect of market timing on capital structure is the effect of last year's equity market price on the current capital structure, or the effect of current equity market prices on the capital structure one year later. A long-term effect of market timing on capital structure is when the historical market value (price) in several years prior affecting current capital structure. In order to determine a long-term effect of equity market timing on capital structure, Baker and Wurgler (1), Weigl (3) use the historical market-to-book ratio and show that the historical market-to-book ratio as a proxy for historical market value is negatively related to capital structure in the current period. Even when capital structure declines, the firms do not rebalance its capital structure

to get to the targeted capital structure, i.e. the optimum capital structure. Conversely, on the theory of dynamic trade-offs, firms will always rebalance or make a process of speed adjustment to get to the targeted capital structure, the optimum capital structure (4).

Based on the research about the usage of equity market timing on capital structure, Baker and Wurgler (1) conclude that capital structure is the cumulative outcome of attempts to time the equity market. Many researchers have conducted research on equity market timing and its a short-term effect on the firms' capital structure in Indonesia. Therefore, this research is mainly focused on a long-term effect of equity market timing on capital structure in Indonesian firms.

There are several researchers that disagree with the findings of Baker and Wurgler (1), one of them is (5). Despite the same research object as their research, he concludes that the historical average market-to-book ratio does not cause the capital structure to decrease due to market equity timing events. He finds that the effect of issuing equity on leverage is small and transient. Nonetheless, he suggests that issuing equity is done when the market-to-book ratio is high. He states that the proxy of market timing does not significantly influence long-term effects on capital structure. The finally, he concludes that the historical market value, calculated by the weighted average market-to-book ratio of external financing, has a significant effect on current funding and investment decisions. He argues that the weighted average market-to-book ratio contains information on growth opportunities not captured by the current market-to-book ratio.

Most of the above empirical studies support Baker and Wurgler (1). Therefore, this study refers as they have done. There are several studies of equity timing markets and short-term effects on the



firm's capital structure in Indonesia, but empirical studies of equity market timing and long-term influence on capital structure is not sufficient, and the findings are different from one to another. With a limited sample, (6) has examined a long-term effect of market timing on capital structure on manufacturing firms whose IPOs were 2000-2008 listed on the Indonesia Stock Exchange. The results show that equity market timing is used in corporate financing and equity market timing has a long-term effect. On the contrary, using a sample of Indonesian companies whose IPOs, 2001-2002, the finding of (7) shows that equity market timing is not persistent for the long-term impact of corporate capital structure in Indonesia.

1.2. Research Problems and Purposes

This research is done on non-financial firms listed in Indonesia Stock Exchange. Based on the background explained above, the main problems of this research are 1) whether firms use equity market timing theory when issuing equity, and 2) whether equity market timing has a long term effect on capital structure of firms in Indonesia. In addition to that, the main purpose of this research is to test these problems on non-financial firms listed in Indonesia Stock Exchange between 2000-2011.

1.3. Research Contribution

The results from this research are expected to give theoretical, empirical, and practical benefit for firms management, investor, economic analyst, and academician that explains which capital structure theory that is applied on firms in Indonesia in doing firm's external funding. Moreover, it is also expected to help the investors as consideration factor on deciding when they purchase or sell equity.

2. Literature Review and Hypotheses Development

2.1. Theory Review

Market-to-book ratio (M/B) of equity has two roles in empirical studies. First, M/B is used as proxy of equity market timing to measure market misvaluation. Elliot et al., (8) say that if M/B is bigger than 1 (one) which indicate over-valuation and vice versa. Managers issue equity when equity price is irrationally high caused by the high M/B. Managers repurchase equity when equity price is irrationally low caused by the low M/B.

Second, M/B can be used as proxy of future growth probability in trade-off theory that assume efficient market. Firms with high M/B will have higher growth because they prefer low leverage to keep their funding flexible (Mahajan, 2007 #19; Myers, 1984 #23). However, this research will use M/B as the first role that is to measure equity market price and market misvaluation.

Baker and Wurgler (Baker, 2002 #28) and the other researchers that use market-to-book ratio as a proxy to measure whether market timing is used when issuing equity. Firms tend to issue equity when the lagged M/B is high and repurchase when otherwise. Then, historical market-to-book ratio is used to capture effect cumulatif outcome of equity market timing on capital structure. The cumulative outcome is a long-term effect of equity market timing on capital structure. If equity market timing does have a long-term effect, it means that historical market-to-book ratio has negative effect on leverage.

2.2. Hypotheses Development

2.2.1. Equity Market Timing is Used When Issuing Equity

Baker and Wurgler (1) state that when stock price is high, firms do external funding using equity since by the higher stock price, the cost of equity is lower. Thus, the stock market price does have negative effect on leverage or capital structure. This finding is supported by the research done by (9). They find that stock price represented by market-to-book ratio has a negative effect on leverage. Rajan and Zingales (9) predict that firms with high market-to-book ratio have higher financial distress. This argument is in line with the trade-off theory that firms with high market-to-book ratios mean high growth and investment that can lead to low free cash flow. To avoid financial distress, firms with high market-to-book ratio choose low leverage (10). Leverage is used to represent the capital structure. According to (4), their research is also supported by the finding of (11) that state that there are positive effects of market-to-book ratio on equity issue.

According to Rajan and Zingales (9), the other argument of the negative effect of market-to-book ratio on leverage is the firm's tendency to issue equity when its stock value is relatively higher than the book value. This argument is relevant with that of (1, 3-5, 12), replicate the work of (9), and find that market value represented by market-to-book ratio does have negative effect on leverage both measured by book leverage and market leverage. This findings show that equity market timing is used when deciding firm's external funding.

The results of research conducted both by (2, 13) indicate that there is a tendency when hot market, both on the IPO and SEO (seasoned equity offering), the company issued more equity than the cold market, which means that there is an equity market timing. Accordingly, the company uses equity market timing when issuing the equity. Hot market shows its market value is high and cold market shows its market value is considered low by the market. According to (14, 15) that the firm's hot market has positive effect on equity issuance activity.

Using a distributed-lag regression model, (3) shows that lagged market-to-book ratio has a positive effect on equity issuance. Therefore, based on the results of the research mentioned above, this research proposes hypothesis 1 (H1) which can be formulated as follows:

H₁: Firms in Indonesia use equity market timing theory when issuing equity

2.2.2. A Long-Term Effect of Equity Market Timing on Firm's Leverage

To determine a long-term effect, (16) use a regression model involving current data on the dependent variable and lagged or past-time on the independent variable (explanatory). A long-term effect of market timing on capital structure is the influence of historical market conditions several years ago on the current capital structure. According to Baker and Wurgler(1) that high market value of equity and historical market value can decrease leverage. The value of the historical equity market means the market value of equity in a long-term (several years). Equity market timing affects leverage, and the effect is negative due to the high historical market value being the company's consideration for issuing equity (17). In examining the effect of historical market value on leverage, Baker and Wurgler(1) use determinants affecting capital structure, as introduced by (9), as control variables.

Bruinschoofd and Haan (18) conduct a study of a long-term effects of equity market timing on capital structures in several countries, i.e. companies in the United States, United Kingdom and in continental European countries. United Kingdom (UK) is a union of United Kingdom countries consisting of England, Scotland, Wales and Ireland. Continental European countries are European countries outside the UK. They test a long-term effect of equity market timing on capital structure using historical market value, that is, by using historical market-to-book ratio historical as proxy. Their results state that in US firms, equity market timing has a long-term effect on capital structure, but on firms in the UK and in continen-

tal European countries, equity market timing does not have a long-term effects on capital structure.

Huang and Ritter (19) support(1), and the results of their study show that historically, equity issue affected by an equity risk premium affects the capital structure and the firm adjusts slowly toward targeted leverage. The gradual adjustment process shows that there is a long-term effect of equity market timing on capital structure. Xu(4) states that market timing measured by historical market-to-book ratio does have negative effect on capital structure of firms in US, while it does not negative effects on that of firms in Canada. Thus, on firms in US, equity market timing does have long-term effect on capital structure, while it does not on firms in Canada.

Manurung (20) studies about optimum capital structure of manufacture firms listed in Indonesia Stock Exchange (ISE) using data from 1990 until 2010. The study shows that there are no optimum capital structure since there are no a process of speed adjustment towards the optimum capital structure. In addition to that, it shows that there are indication that equity market timing theory is occurred and equity market timing does have long-term effect on capital structure. By using the manufacture firms in period 2001-2008 as the sample, (21) undertake research about the adjustment process towards optimum capital structure. Their research results show that there are some that acquired the optimum capital structure from the dynamic adaptation process. However, on other industries, there are some research results showing that there are some process adjustments on capital structure that are slow and indicating that equity market timing does have long-term effect on capital structure. Based on the research above, this research proposes hypothesis 2 (H2) as follows:

H2: Equity market timing has a long-term effect on capital structure of the firms in Indonesia.

3. Methodology

3.1. Research Data and Sample

The sample of this research is non-financial firms listed in Indonesia Stock Exchange (ISE) from period 2001-2011. The sample choosing is based on sample non-probability sampling using purposive sampling in form of judgment sampling (22). The data are obtained especially from the firms financial reports. The statistical summary, consisting the relation between firms characteristic and the funding policy from the same period, is presented in this research.

This research uses panel data or pooled data, which is the combination of time series and cross-section data. While testing the hypotheses, equity market timing is not only be tested on IPO (initial public offering), but also on SEO (seasoned equity offering) and right issue as well.

3.2. Operational Definition and Variable Measurement

The hypotheses will be tested using a distributed-lag regression model. Capital structure is measured by leverage and it will be the main variable or dependent variable since all of the market timing test is used to see the effect of equity market timing on capital structure or leverage. When firms issue equity, the leverage will decrease and vice versa. In order to get the best result, lagged leverage (leverage on period t-1) is used as a control variable to test a long term effect of equity market timing on capital structure. Lagged leverage has a negative effect on current capital structure or leverage (period t).

To test market timing, net equity issue is needed as the dependent variable regarding hypothesis 1 (H1) test, whether firms use equity market timing when doing net equity issue. Equity market value or price is measured by lagged market-to-book ratio (M/B) and this research expects a result that lagged M/B has a positive effect on net equity issue.

Hypothesis 2 (H2) test uses historical M/B as independent variables which are measured by equity finance weighted average (eqwa) and notated as M/B_{EQWA} . In this research, historical M/B is expected to have a negative effect on capital structure. Asset tangibility is net plant, property, and equipment notated by (PPE). Lagged PPE divided by total assets (PPE/A) is used as a control variable and is expected to have a positive effect on capital structure since the tangible asset itself can be used as debt guarantee.

Profitability is measured from earnings before interest, taxes, and depreciation (EBITDA) divided by total book assets (A) and is expected to have negative effect on capital structure as implemented in pecking order theory. When firms need funds and have profitability, their funding needs will be made by retained earnings. When retained earnings rises, leverage decreases. Size is measured from net sales, and in test model, size is measured by log net sales (log S). Lagged (log S) is expected to have a positive effect on capital structure since this variable could be the proxy to decrease loss probability. Retained earnings is also one of the control variable to test the robustness on the first hypothesis (H1). The result test of hypothesis could be stated as robust only when it is still consistent even after this new control variable is added in the test.

In summary, notation, formula and variable definition used in this research are presented in Table 1 below:

Table 1: Notation, Formula, and Variable Definition

Num	Notation/Formula	Definition
1	A	Total book assets = total debt plus book equity
2	BL	Book leverage is total debt (D) divided by total book assets (A)
3	D	Total liability, is total debt which are printed in the balance sheet, and total debt = short-term debt + long-term debt
4	E	Equity (book equity), is the equity value which are in the balance sheet
5	e/A	Net equity issue (e) = (the change book equity - the change in retained earnings) then divided by total book assets (A)
6	EBITDA/A	Earnings before interest, taxes, and depreciation (EBITDA) divided by total book assets (A)
7	L	Leverage, either book leverage (BL) or market leverage (ML)
8	Log (S)	The logarithm of net sales
9	M	Market value of asset = total debt + market capitalization
10	M/B	Market-to-book ratio = market equity divided by book equity, as the proxy to measure equity market, and often labeled as the equity market timing proxy
11	M/B_{EQWA}	Historical M/B that attained from M/B equity finance weighted average
12	ML	Market leverage = total debt divided by total asset market value
13	PPE/A	Net property, plant, and equipment (PPE) divided by total assets (A)
14	RE/A	retained earnings (RE) divided by total assets (A)

3.3. Research Model and Hypothesis Test

3.3.1. The First Hypothesis (H1) Model: Firms Use Equity Market Timing on Net Equity Issue

Derived from several empirical study results, H1 test model is that lagged market-to-book ratio has a positive effect on net equity issue. By using panel data, the distributed-lag regression formula on H1 test is as follows:

$$\left(\frac{e_t}{A_t}\right) = a_0 + a_1 \left(\frac{M}{B}\right)_{t-1} + a_2 \left(\frac{EBITDA}{A}\right)_{t-1} + a_3 \log(S)_{t-1} + a_4 \left(\frac{PPE}{A}\right)_{t-1} + \epsilon_{1,t-1} \quad (1)$$

With t test, H1 regression formula model (1) is supported if statistically $\alpha_1 > 0$, which means there is a significant negative effect from lagged market-to-book ratio on net equity issue

3.3.2. The Second Hypothesis Model (H2): A Long-Term Effect of Equity Market Timing on Leverage

Xu (4) test the long-term effect of equity market timing on capital structure using historical market value measured by the weighted average of historical market-to-book ratio. Based on the research, this research uses equity finance weighted average market-to-book ratio (MB_{EQWA}) as proxy of weighted average of historical market-to-book ratio.

$$MB_{EQWA} = \frac{\sum_{s=0}^{t-1} \alpha_s \times (MB\ Ratio)_{it}}{\sum_{s=0}^{t-1} \alpha_s} \tag{2}$$

Notation e is the net equity issue. Period t or $s = 0$ shows the period when firms start IPO or shows the first period. H2 test also use distributed-lag regression model analysis which involves present data as dependent variable, lagged/past data as independent variable. Since it is used to test the long-term effect, the lagged data for the independent variable consist of several years of data. On the other hand, the independent variable used to test H2 is the historical market value measured from historical market-to-book ratio (historical M/B) from more than 1 year. To test H2, this research uses two model. The first model of H2 is based on (4) and (17) that the historical M/B has a negative effect on firm's leverage. The distributed-lag regression formulation the first step model is as follows:

$$L_{it} = \alpha_0 + \alpha_1 MB_{EQWA_{it}} + \alpha_2 \left(\frac{M}{B}\right)_{it-1} + \alpha_3 \left(\frac{EBITDA}{A}\right)_{it-1} + \alpha_4 \log(S)_{it-1} + \alpha_5 \left(\frac{PPE}{A}\right)_{it-1} + \epsilon_{it} \tag{3}$$

Through t test, the first step H2 test model is supported when the distributed-lag regression model formula (3) statistically $\alpha_1 < 0$ and it means that there is a significant negative effect from equity finance weighted average of market-to-book ratio (MB_{EQWA}) on book leverage in period t . The second model use the cumulative change of leverage as dependent variable, historical market value of stock equity as the independent variable, and other several control variables (1, 2). The historical market value is also measured by historical M/B from several years before

When equity market timing has a long-term effect on capital structure, the cumulative change of leverage should reflect the effect of market condition or equity market value from several years after IPO continuously (2). Therefore, second step H2 test model is *historical Δ BL* having a negative effect on firm's the cumulative change of leverage.

Regression model formula of the second step H2 is as follows:

$$L_t - L_{t-1} = \alpha_0 + \alpha_1 \Delta MB_{EQWA_{it}} + \alpha_2 \left(\frac{M}{B}\right)_{it-1} + \alpha_3 \left(\frac{EBITDA}{A}\right)_{it-1} + \alpha_4 \log(S)_{it-1} + \alpha_5 \left(\frac{PPE}{A}\right)_{it-1} + \alpha_6 \Delta L_{t-1} + \epsilon_{it} \tag{4}$$

Note:

The cumulative change on leverage (L) in form of $BL_{t,t} - L_{t,t-1}$ = the cumulative change of book leverage is the dependent variable. By using t test, the second step H2 test on formula (4) is supported when statistically $\alpha_1 < 0$ and it means there is a significant negative effect of historical market-to-book ratio from period t on the cumulative change of leverage.

4. Results and Findings

4.1. Research Sample Description

The sample choosing is based non-probability sampling using purposive sampling in forms of judgment sampling(22). Numbers of the firms in this sample are 246. The sample of this research is non-financial firms listed in Indonesia Stock Exchange (ISE) from period 2001-2011 without concerning about the IPO. This research uses panel data, the combination of time series and cross section data. The data used to perform hypothesis analysis are derived from the annual report and the Indonesia Capital Market Directory (ICMD) provided by ISE.

4.2. Research Variable Description

Table 2 below presents the statistics descriptions of variables used in this research on firms listed in ISE in 2001-2011. The average of net equity issue divided by total asset (e/A) is 0.0373 meaning that in general the net equity issue divided by total assets is 3.73%. The average of market-to-book ratio is (M/B) is 1.6280 which means in general the market-to-book ratio is 1.6280. The positive value of net equity issue average is suspectedly caused by the market-to-book ratio average being more than one. Thus, there are indication of firms using equity market timing when issuing equity. Average earnings before interest, tax, and depreciation divided by total assets (EBITDA/A) is 0.0882. Average log of sales [Log(S)] is 5.7046, which means in general the log of sales is 5.7247, and is equal IDR 530,517,848,900. The average net property, plant, and equipment divided by total assets (PPE/A) is 0.3593, meaning that in general it is 35.93%. Average BL is 0.5259, which means that in general the book leverage (BL) is 52.59%. Average ML is 0.2747, which means that in general market leverage is 27.47%. The average BL is bigger than the average ML because the average M/B is bigger than 1.

Table 2: Statistics Variable Description (Panel Data Sample 246 Firms)

Variable	Mean	Maximum	Minimum	Std. Dev.
e/A	0.0373	0.9960	-0.9283	0.1326
M/B	1.6280	21.2000	0.0300	2.0282
EBITDA/A	0.0882	0.8082	-0.9155	0.1144
Log(S)	5.7247	8.2110	1.9912	0.8364
PPE/A	0.3593	6.6086	0.0000	0.2701
BL	0.5259	0.9990	5.80E-08	0.2300
ML	0.2747	0.9975	0.0001	0.2331
M/Beqwa	2.0966	23.6471	2.75E-11	3.2609
Δ BL	-0.0011	0.9147	-0.9955	0.1869
Δ BL _{short}	0.0095	0.9934	-0.9864	0.3053
Δ ML _{short}	0.0048	0.9975	-0.9596	0.3436

Table 2 presents the summary of statistic variables description in this research using 246 firms as the sample

4.3. H1 Test Result and Discussion: Lagged Market-to-Book Ratio Has Positive Effect on Net Equity Issue

Table 3 shows the panel data regression results consisted from common effect, fixed effect, and random effect. Through Restricted F and Hausman test, the chosen and the best estimator is fixed effect. The selected estimator has been tested with a series of classical assumption tests and the results have parsed. The dependent variable used in this model is net equity issue (e/A).

Table 3: Hypothesis 1 Test Results using Common Effect, Fixed Effect, and Random Effect

$$\left(\frac{e}{A}\right)_{it} = \alpha_0 + \alpha_1 \left(\frac{M}{B}\right)_{it-1} + \alpha_2 \left(\frac{EBITDA}{A}\right)_{it-1} + \alpha_3 \log(S)_{it-1} + \alpha_4 \left(\frac{PPE}{A}\right)_{it-1} + \alpha_5 BL_{it-1} + \epsilon_{it}$$

Independent Variable	Coef. Mark	Common Effect		Fixed Effect		Random Effect	
		Coef.	Prob.	Coef.	Prob.	Coef.	Prob.
Constant		0.0658	0.0000	0.0895	0.0344	0.0652	0.0000
(M/B) _{it-1}	+	0.0030	0.0022***	0.0047	0.0001***	0.0030	0.0019***
(EBITDA/A) _{it-1}	-	-0.0328	0.0803*	0.0160	0.6013	-0.0298	0.1204

LOG(S) _{it-1}	-	-0.0110	0.0000***	-0.0239	0.0011***	-0.0116	0.0000***
(PPE/A) _{it-1}	-	-0.0098	0.1619	-0.0171	0.1374	-0.0102	0.1575
BL _{it-1}	+	0.0262	0.0046***	0.1104	0.0000***	0.0296	0.0016***
Adjusted R ²		0.0184		0.0602		0.0187	
Statistics F		8.0416	0.0000***	1.5022	0.0000***	8.1474	0.0000***
Number of Observations		1,873		1,873		1,873	
Notes:							
Fixed effect is chosen and H1 is proven because $\alpha_1 > 0$ statistically as expected.							

Table 4: The First H2 Test Results (The Book Leverage as The Dependet Variable)

$$BL_{it} = \alpha_0 + \alpha_1 MB_{eqw, it} + \alpha_2 \left(\frac{M}{B}\right)_{it-1} + \alpha_3 \left(\frac{EBITDA}{A}\right)_{it-1} + \alpha_4 \log(S)_{it-1} + \alpha_5 \left(\frac{PPE}{A}\right)_{it-1} + \epsilon_{it}$$

Independent Variable	Coef. Mark	Common Effect		Fixed Effect		Random Effect		Fixed Effect Cross-Section Weighted (GLS)	
		Coef.	Prob.	Coef.	Prob.	Coef.	Prob.	Coef.	Prob.
Constant		0.0785	0.041	0.5213	0.000	0.3709	0.000	0.0630	0.005
M/Begw a	-	0.0043	0.006	0.0062	0.129	0.0054	0.042	0.0052	0.000
(M/B) _{it-1}	-	0.0024	0.401	-0.0002	0.892	0.0002	0.894	0.0020	0.157
(EBITDA/A) _{it-1}	-	-0.4436	0.000***	-0.1818	0.000***	-0.2187	0.000***	-0.4309	0.000***
LOG(S) _{it-1}	+	0.0783	0.000***	-0.0037	0.742	0.0224	0.017***	0.0767	0.000***
(PPE/A) _{it-1}	+	0.0713	0.000***	0.0535	0.002***	0.0566	0.000***	0.0877	0.000***
Adjusted R ²		0.1109		0.6966		0.0234		0.3271	
Statistics F		40.0700	0.000***	19.538	0.000***	8.5303	0.000***	153.274	0.000***
Observation Number		1,567		1,567		1,567		1,567	
Notes:									
The chosen method is fixed effect cross-section weighted (GLS), and the first H2 test result with BL as dependent variable is shown not proven because $\alpha_1 > 0$ statistically which is not as expected.									

Table 5: The Second H2 Test Result (The Cumulative Change of Book Leverage as The Variable Dependet)

$$BL_{it} - BL_{i,2000} = \alpha_0 + \alpha_1 MB_{eqw, it} + \alpha_2 \left(\frac{M}{B}\right)_{it-1} + \alpha_3 \left(\frac{EBITDA}{A}\right)_{it-1} + \alpha_4 \log(S)_{it-1} + \alpha_5 \left(\frac{PPE}{A}\right)_{it-1} + \alpha_6 BL_{i,2000} + \epsilon_{it}$$

Independent Variable	Coef. Mark	Common Effect		Fixed Effect		Random Effect		Fixed Effect Cross-Section Weighted (GLS)	
		Coef.	Prob.	Coef.	Prob.	Coef.	Prob.	Coef.	Prob.
Constant		-0.0221	0.670	-0.2418	0.024	-0.1247	0.117	-0.0320	0.1347
M/Begw a	-	0.0029	0.193	0.0212	0.000	0.0088	0.015	0.0041	0.0020
(M/B) _{it-1}	-	-0.0003	0.929	-0.0049	0.176	-0.0042	0.225	0.0022	0.3153
(EBITDA/A) _{it-1}	-	-0.2229	0.000***	-0.0623	0.405	-0.1078	0.114	-0.1854	0.0000***
LOG(S) _{it-1}	+	0.0023	0.795	0.0338	0.073*	0.0176	0.197	0.0030	0.4264
(PPE/A) _{it-1}	+	0.0386	0.110	0.0125	0.630	0.0226	0.349	0.0573	0.0000***
Adjusted R ²		0.0077		0.5287		0.0049		0.0438	
Statistics F		3.0099	0.010**	531.16	0.000***	2.2965	0.043**	134.268	0.000***
Observation Number		1,293		1,293		1,293		1,293	
Notes:									
The chosen method is fixed effect cross-section weighted, and the second H2 test result with BL-BL ₂₀₀₀ as dependent variable is shown not proven because $\alpha_1 > 0$ statistically which is not as expected.									

Table 4.2 presents the results summary of regression estimates to test H1. Through Restricted F and Hausman test, the chosen and the best estimator is fixed effect. *** = supported statistically with 1% significance, ** = supported statistically with 5% significance, and * = supported statistically with 10% significance.

On Table 3, the determinant coefficient (Adjusted R²) on fixed effect is 0.0602 showing that the total of dependent variable variation, net equity issue, could be explained by the 6.02% independent variable variation. On the table, the probability of statistics F on fixed effect is smaller than 5% significance. Therefore, this model could be used to predict the dependet variable, net equity issue, statistically (Kuncoro, 2007).

H1 test results based on t test show that the lagged M/B does have positive effect on net equity issue statistically. The positive effect shows that when lagged M/B rises it will lead equity issue rises as well, and vice versa. This result is in line with the results of the study done by (1-3, 15).

4.4. Hypothesis H2 Test Result: Equity Market Timing Having Long-Term Effect on Leverage

First H2 test with book leverage as dependent variable starts with processing the data to obtained the panel data regression estimation using common effect, fixed effect, and random effect. Trough restricted F and Hausman tests, the chosen and best estimator is

fixed effect cross-section weighted (GLS). This estimator has passed the classical assumption tests. The dependent variable used in this model is book leverage (BL).

On Table 4, the determinant coefficient (Adjusted R²) on fixed effect cross-section weighted is 0.3271 showing that the total variation of BL as the dependent variable could be explained by the variation of the independent variable in amount of 32.71%. Presented in the table, the probability of statistics F on fixed effect cross-section weighted is 0%. It means statistically, the model could be used to predict the book leverage as the dependent variable (23). The regression coefficient α_1 is not relevant with the first H2 test so that MB_{eqw} does not have negative effect on leverage. Hence, The first H2 is not statistically proven.

To understand the consistency and persistence of a long-term effect of equity market timing, it is required to do the second H2 test. Table 5 presents the second H2 test regression results consisted from common effect, fixed effect, random effect, and fixed effect weighted (GLS) methods. The dependent variable used is the cumulative change of book leverage on book leverage in 2000 ($BL_{it} - BL_{i,2000}$). Through Restricted F and Hausman test, the chosen and best estimator is fixed effect cross-section weighted. This estimator has passed the classical assumption tests.

Table 4 presents the results summary of regression estimation to test the first H2 with book leverage as dependent variable. There are three panel data regression estimator which are common effect, fixed effect, and random effect. Through Restricted F test and

Hausman test, the chosen and the best estimator is fixed effect cross-section weighted (GLS). *** = supported statistically with 1% significance, ** = supported statistically with 5% significance, and * = supported statistically with 10% significance.

Table 5 presents the results summary of regression estimation to test the second H2 with book leverage cumulative change as dependent variable. There are three panel data regressions estimator which are common effect, fixed effect, and random effect. Through Restricted F and Hausman test, the chosen and the best estimator is fixed effect cross-section weighted. *** = supported statistically with 1% significance, ** = supported statistically with 5% significance, and * = supported statistically with 10% significance.

On Table 5, the determinant coefficient (*Adjusted R²*) on *fixed effect cross-section weighted* is 0.0458 and showing that the total variation of $BL-BL_{2000}$ as the dependant variable could be explained by the independent variable in the amount of 4.58%. Derived from the table, the probability on statistics F on the methods is 0%, which means that statistically, the model could be used to predict the dependent variable. Through t test, the positive regression coefficient is not as the same as what it is expected. Therefore, second H2 test with the cumulative change of book leverage as dependent variable is not proven.

The first and second H2 test is to test that equity market timing has a long-term effect on firm's capital structure. Based on H2 tests from both steps, every regression coefficient on the historical M/B does not have negative effect on both the leverage and the cumulative change of leverage. This research result is not relevant to the research done by (1, 19).

The H2 test results in this research are in line with the results of the study done by (2, 7, 24), that market timing does not have a long-term effect on capital structure. (18) say that on firms in UK and continental Europe, equity market timing does not have a long-term effect on capital structure. The findings of (7) show that equity market timing is not persistent for a long-term impact of corporate capital structure in Indonesia. The results of this study are also similar to the research undertaken by (4) at Canadian firms and (12) at Tunisia firms and France firms. Therefore, this research can be concluded that capital structure of the firms in Indonesia is not showing the cumulative outcome of attempts to time the equity market.

According to (4), when market timing does not have long-term effect on leverage, the firms undertake the process of speed adjustment toward the targeted capital structure, i.e. optimum capital structure. When there is deviation on the capital structure, the firms will perform the process of speed adjustment towards the targeted capital structure. The process shows the trade-off theory as one of the theories of capital structure. This effect of trade-off theory is relevant to research results achieved by (25, 26).

Darminto and Manurung (25) state that the determinant factors of capital structure according to trade-off theory affect the capital structure of firms in Indonesia. Research done by Surwanti (26) about process of speed readjustment towards targeted capital structure of firms in Indonesia. Her research states that dynamic trade-off theory is applied in Indonesian firms because there is indication that the process of speed adjustment towards targeted capital structure, the optimum capital structure. Based on this research, there is indication that firms in Indonesia use two capital structure theory simultaneously, which are equity market timing and trade-off theory in deciding their capital structure policy. The use of two or more theories simultaneously is relevant to research result done by (27) stating that the capital structure theories are not mutually exclusive.

4.5. Robustness Test

To test the consistency and persistence of this research results, retained earnings are added as the control variable for H1 test model, and replacing the dependent variable with market leverage for H2 test model. The test result on H1 regression model after

adding the independent variable is still consistently proven. Moreover, the test result on H2 regression model after replacing the dependent variable with market leverage is also consistently not proven. Based on that robustness test, this research results are robust that firms Indonesia use equity market timing on net equity issue, and equity market timing does not have a long-term effect on leverage or capital structure of firms in Indonesia.

5. Conclusion

Through the H1 test, the results show that H1 is statistically, consistently, and significantly proven that firms in Indonesia use equity market timing when issuing equity. Through H2 test, the historical market value represented by MB_{EQWA} does not have a negative effect on the book leverage and on the cumulative change of book leverage. The robustness tests on H1 and H2 are the same and consistent with the prior test. Therefore, this research concludes that firms in Indonesia use equity market timing on net equity issue, and equity market does not have a long-term effect on leverage or capital structure of firms in Indonesia.

According to Xu (4), when market timing does not have a long-term effect on leverage, firms do the process of speed adjustment towards the targeted capital structure, which is optimum capital structure. The process shows the trade-off theory as one of the theories of capital structure. This effect of trade-off theory is relevant to research results achieved by (25, 26).

5.1. Implication

The empirical finding of this research brings out two implication, theoretical and practical implications. First, theoretical implication. This research could explain equity market timing, a capital structure theory, and its effect on capital structure of firms in Indonesia. Second, practical implication. The results of this research are expected to provide direction and guidance for corporate management in Indonesia, especially in issuing equity. To sustain the firms objective achievement which is maximizing firms value, the management should issue equity only when the stock price is high and repurchase it when the stock price is low.

5.2. Limitation and Suggestion

This research does not use sample industrial firms in detail. The tests about equity market timing and its effect on capital structure of firms in Indonesia should also be conducted on firms based on each industry group. Therefore, it is expected to enhance the empirical support to test market timing theory and its effect on capital structure of the firms in Indonesia.

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THE INFLUENCE OF HISTORICAL MARKET VALUE OF EQUITY ON CAPITAL STRUCTURE

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Abstract

This research is about market timing and capital structure of the company. The research problem is whether the historical equity market value has a negative influence on the capital structure of Indonesian companies. The purpose of this study is to examine whether equity market timing has a persistent influence on the firm's capital structure in Indonesia. In achieving the purpose, there are two hypotheses developed in this study. The first hypothesis is that historical price-book-value (PBV) negatively affects leverage; while the second hypothesis, is that historical PBV ratio negatively affects the cumulative change of leverage. The samples used are data from the companies listed on the Indonesia Stock Exchange during the 2001-2011 research period in the cross-section data form. The sample is broken down into subsamples based on IPO+k, in which *k* is the number of years after the IPO (initial public offering). The results show that most of the regression coefficients in the historical PBV do not negatively affect the capital structure and only a small part of the regression coefficient of the historical PBV has a statistically negative effect on the capital structure. Therefore, there is an indication that equity market timing has no persistent effect on the firm's capital structure in Indonesia.

Keywords: capital structure, equity market timing, historical market value, persistent effect

Introduction

Several researchers have conducted studies whether companies use market timing equity when they are going to issue equities. It is found that most studies carried out in various countries support that firms, in fact, have been using equity market timing when issuing equities. There have been several studies in America, regarding equity market timing that persistently affects capital structure. However, investigations regarding market timing equity in Indonesia – whether it persistently affects equity structure – have been lacking considerably. Concerning the previous research in several countries, this paper aims to investigate the influence of historical market value on the capital structure of non-financial companies listed on the Indonesia Stock Exchange (ISE).

PBV (price-book-value) can be used to measure the market value of equity. The historical market value is measured by historical PBV. Elliot, Koester-Kant, and Warr (2007) stated that PBV greater than 1 indicates over-valuation, while PBV less than 1 signifies under-valuation. Managers will issue equity when capital is over-valued. Research in Indonesian firms regarding the relationship between equity market timing and the capital structure is still lacking. Moreover, the existing research employs only very basic research methods and the data is still insufficient. The historical market value of equity that is measured by historical PBV is aimed at capturing the cumulative effect of equity market timing on capital structure. The cumulative effect is derived from several years of equity market timing on the capital structure. If the equity market timing is proved to be affecting the capital structure for years, the historical price-book-value might have a negative effect on the capital structure. This is because the issuance of equity driven by high market prices in the past several years will potentially cause the capital structure to decline (Alti, 2006). This theory differs from the trade-off theory. While there are deviations in the capital

structure, on the contrary, trade-off theory will always try to keep the capital structure in accordance with the targeted capital structure, that is, the optimum capital structure (Huang and Ritter, 2004).

Based on the problems described above, the formulation of the problem used in this study about the analysis of the influence of historical market value of equity on the capital structure of non-financial companies listed on the ISE. It aims to test whether historical market value negatively affects the capital structure of companies in Indonesia. The purpose of this study is to examine this problem. The results of this study are expected to provide theoretical, empirical, and practical benefits to corporate managers, investors, economic observers, and academics. They will be able to acknowledge and utilize the results from this study regarding ways in which market timing may be applied to companies in Indonesia. For chief financial officers, this research is expected to be a reference for financing decision in the capital structure.

Literature Review

In order to examine the influence of historical market value of equity on capital structure, two hypotheses will be tested in this research. The first hypothesis is developed based on the studies from Kasbi (2007), Weigl (2011), and also Baker and Wurgler (2012). They reported that historical PBV has a negative effect on corporate leverage. The historical PBV is the PBV within the period of $IPO+k$, in which k is the number of years after the IPO. This negative impact is obtained when a company has a high historical value, the company will issue equity, and there is not also an indication of the dynamic trade-off theory applies, i.e., there is not a rebalancing process toward the targeted capital structure, the optimum capital structure (Saadah and Prijadi, 2012). Since the company has issued equities, the capital structure represented by leverage is decreased. In this study, leverage is calculated as total debt divided by total assets. Thus, the first hypothesis (H1) can be expressed as follows:

H1: Historical PBV has a negative effect on leverage.

The second hypothesis development (H2) is to test whether the equity market timing has a persistent influence on the capital structure. Using cumulative changes of leverage as the dependent variable, the historical market value of equity acts as an independent variable, while the determinants of capital structure will be the control variable (Baker and Wurgler, 2002; Alt, 2006; and Weigl, 2011). Baker and Wurgler (2002) showed that historical PBV has a negative effect on cumulative changes of firm leverage. The negative effect indicates when the historical PBV increases it can cause current leverage to decline since to the company are issuing equity. The decrease in the leverage causes cumulative changes to be in the negative value. These findings support that market timing have a persistent influence on the firm's capital structure. The cumulative change in leverage is firm leverage in period t minus the firm's leverage in the pre-IPO period. In line with this study, using a price-book-value (PBV), it can measure whether historical market value of equity affects persistently with capital structure. Therefore, hypothesis 2 (H2) can be expressed as follows:

H2: Historical PBV has a negative effect on the cumulative change of leverage

According to Baker and Wurgler (2002) as well as Xu (2009), this study uses equity finance weighted average PBV (PBV_{eqwa}) to test whether equity market timing has a persistent influence on capital structure.

$$PBV_{eqwa,t} = \frac{\sum_{s=0}^{t-1} [e_s \times (PBV)_s]}{\sum_{r=0}^{t-1} e_r} \quad (1)$$

The e notation is the issuance of net equity. Period r or s of 0 indicates the period of the company when it conducted the IPO. Then, the two hypotheses can be illustrated in a research model as in Figure 1 below.

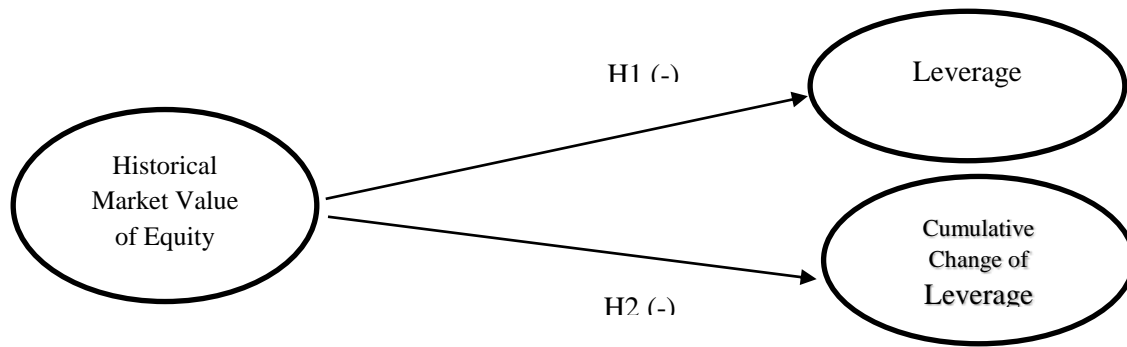


Figure 1. Research Model (Baker and Wurgler, 2002; Altı, 2006, and Weigl, 2011)

Methods

1. Sample and Research Data

This study uses non-probability sampling (i.e., purposive sampling) through judgment sampling (Cooper and Emory, 1995). The sample selection is not only for equity market timing on IPO (initial public offering) but also on SEO (seasoned equity offering) and right issue. Samples are the firms listed on the Indonesia Stock Exchange during the 2001-2011 period in the form of cross-section data based on $IPO+k$, in which k is the number of years after the IPO. The sample consists of sub-samples ranging from $IPO+1$ to $IPO+10$. An IPO in a company is critical sources of funding event that is known to be associated with a market value.

2. Operational Definition and Measurement of Variables

In summary, the notations, formulas, and definitions of variables used in this study are exhibited in Table 1 below

3. H1 and H2 Testing Model

The model used to test hypotheses is dynamic multiple regression (Gujarati and Porter, 2017). In testing the hypothesis, this study uses four determinants of capital structure or corporate characteristics as control variables. The control variables are: lagged price-book-value (PBV), lagged profitability (lagged PROF, lagged sales (lagged S), and lagged tangibility asset (lagged TANG). According to Rajan and Zingales (1995), PBV has a negative influence or correlation on leverage, because 1) high PBV has higher financial distress cost, thus avoiding debt, and 2) firms tend to issue shares when their share price is relatively high compared to profit or book value. Profitability has a negative effect on leverage because with the profitability of funding done with retained earnings. Size can have a positive or negative effect on leverage. The bigger the company gets the trust of the bank to get the bigger loan because the bank considers that the funds lent to larger companies will be more secure. If so, the size is positively associated with leverage. Large companies are better able to issue equities than small firms. If so, large size companies are negatively related to leverage (Rajan and Zingales, 1995). The model used to test H1 and H2 is as follows (Baker and Wurgler, 2002; and Xu, 2009):

$$H1: MLev_t = \alpha_0 + \alpha_1 PBV_{eqwa,t} + \alpha_2 (PBV)_{t-1} + \alpha_3 (PROF)_{t-1} + \alpha_4 \log(S)_{t-1} + \alpha_5 (TANG)_{t-1} + \epsilon_{t-1} \quad (2)$$

$$H2: MLev_t - MLev_{pre-IPO} = \alpha_0 + \alpha_1 PBV_{eqwa,t} + \alpha_2 (PBV)_{t-1} + \alpha_3 (PROF)_{t-1} + \alpha_4 \log(S)_{t-1} + \alpha_5 (TANG)_{t-1} + \alpha_6 MLev_{pre-IPO} + \epsilon_{t-1} \quad (3)$$

Using t-test, H1 and H2 are supported if statistically $\alpha < 0$.

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$$H2: MLev_t - MLev_{pre-IPO} = \alpha_0 + \alpha_1 PBV_{eqwa,t} + \alpha_2 (PBV)_{t-1} + \alpha_3 (PROF)_{t-1} + \alpha_4 \log(S)_{t-1} + \alpha_5 (TANG)_{t-1} + \alpha_6 MLev_{pre-IPO} + \epsilon_{t-1} \quad (3)$$

Using t-test, H1 and H2 are supported if statistically $\alpha < 0$.

Table 1 Notation, Formula, and Variable Definition

No	Notation/Formula	Definition
1	A	Total book assets = total debt plus book equity
2	BLev	Book leverage is total debt (D) divided by total book assets (A)
3	BLev-BLev _{pre-ipo}	A cumulative change of book leverage
4	D	Total liability is a total debt which is printed on the balance sheet, and total debt = short-term debt + long-term debt
5	E	Equity (book equity), is the equity value which is on the balance sheet
7	PROF	Earnings before interest, taxes, and depreciation (EBITDA) divided by total book assets (A)
8	Lev	Leverage, either book leverage (BL) or market leverage (ML).
9	Log (S)	The logarithm of net sales
10	M	Market value of asset = total debt + market capitalization
11	PBV	Price-book-value (PBV) is share price divided by book value of shares
12	M/B _{eqwa} Historical PBV	Historical PBV that attained from M/B ratio equity finance weighted average
13	MLev	Market leverage = total debt divided by total asset market value
14	MLev-MLev _{pre-ipo}	Cumulative change of market leverage
15	TANG	A tangible asset is Net property, plant, and equipment (PPE) divided by total assets (A)

(Baker and Wurgler, 2002; Elliot, Koester-Kant, and Warr, 2007; and Weigl, 2011)

Results and Discussion

1. Description of Research Variables

In each period (subsample), most of the average BLev value is greater than MLev because in each period most of the average PBV are greater than one. BLev and MLev of low value indicate funding with

relatively low debt, while BLev and MLev of high value indicates high debt funding. In the year approaching IPO, e.g., IPO + 1 and IPO + 2, generally BLev and MLev are relatively low compared to years farther from IPO, e.g., IPO + 7 and IPO + 10. The farther the period from the IPO, companies generally have higher BLev and MLev. Similarly, Δ BLev pre-ipo and Δ MLev pre-ipo, BLev, and MLev increased there are relatively no indications of persistent market equity influence on leverage or capital structure. If BLev and MLev are increasing, there is an indication of the dynamic trade-off theory which may apply, i.e., there is a rebalancing process toward the targeted capital structure, the optimum capital structure.

2. Results to Test Hypotheses

The results to test H1 and H2 is presented in Table 2. Regression of coefficients on control variables is not presented in the table. Based on F-test results, all of these regression models can be used to test H1 and H2 with the dependent variable of market leverage (Kuncoro, 2007). Based on the classical assumption test, all regression capital in the table has passed from the classical assumption test. H1 test result proved only in subsample of IPO + 4, and H2 test result proved only in subsamples of IPO+4 and IPO+7 because statistically $\alpha_1 < 0$ as expected.

Table 2 below presents a summary of the results of regression estimation to test H1 and H2 based on IPO+k in which k data is the year after IPO. The numbers in parentheses show the probability values in the t-test. Regression of coefficients on control variables is not presented in the table. *** = statistically supported at 1% significant level; ** = statistically supported at 5% significant level; * = statistically supported at 10% significant level; +/- in parentheses indicates the direction of the regression coefficient as expected

3. Discussion

H1 and H2 are aimed at testing whether the historical market value of equity affects the capital structure on non-financial companies listed on the Indonesia Stock Exchange. Based on the results of the statistical hypothesis testing, most of the sub-samples in the regression coefficients of the historical PBV do not negatively affect market leverage; in addition, only a few subsamples had a regression coefficient from historical PBV that statistically affected dependent variable negatively. The results of this study are not analogous to those that were conducted by Baker and Wurgler (2002) and also Huang and Ritter (2004). Thus, the results of the study show that equity market timing does not have a persistent influence on the capital structure of non-financial companies listed on the Indonesia Stock Exchange. Therefore, the results of the study are not in line with the results reported by Baker and Wurgler (2002), Huang and Ritter (2007), and Fahima, Soeharto, and Sulistyowati (2016). If the equity market timing affects the capital structure, its influence is merely temporary.

The result of H1 and H2 test in this research, however, is similar to studies conducted by Alti (2006), Bie and Haan (2007), and Fahima, Soeharto, and Sulistyowati (2016). Their studies showed it is not proven that market timing has a persistent influence on capital structure. Bruinshoofd and Haan (2007) denoted that in the companies originated in UK and Continental European countries, equity market timing does not have a persistent influence on capital structure. According to Xu (2006), when market timing does not affect persistently on leverage, there is an indication that the company has made a speed adjustment process (rebalancing) on the capital structure towards the targeted capital structure, the optimum capital structure. The process of speed adjustment is found in the dynamic trade-off as one of the theories of capital structure. This indication is in line with the studies conducted by Darminto and Manurung (2008) as well as Surwanti (2015). According to Darminto and Manurung (2008), the determinants of capital structure according to the theory of trade-off influence the capital structure of companies in Indonesia. Research conducted by Surwanti (2015) on the speed of adjustment in companies in Indonesia and the results also indicate that the dynamic trade-off theory applies in Indonesia since there is a process of speed adjustment towards the targeted capital structure, the optimal capital structure.

Tabel 2 . H1 and H2 Test Results

H1: $MLev_t = \alpha_0 + \alpha_1 PBV_{eqwa,t} + \alpha_2 (PBV)_{t-1} + \alpha_3 (PROF)_{t-1} + \alpha_4 \log(S)_{t-1} + \alpha_5 (TANG)_{t-1} + \epsilon_{t-1}$
H2: $MLev_t - MLev_{pre-IPO} = \alpha_0 + \alpha_1 PBV_{eqwa,t} + \alpha_2 (PBV)_{t-1} + \alpha_3 (PROF)_{t-1} + \alpha_4 \log(S)_{t-1} + \alpha_5 (TANG)_{t-1} + \alpha_6 MLev_{pre-IPO} + \epsilon_{t-1}$

IPO+k	N	Test Result H1			Test Result H2		
		PBV _{eqwa} [-]	Adj R-Square	F test	PBV _{eqwa} [-]	Adj R-Square	F test
IPO +1	146	0.0198 (0.018)	0.136	2.7323 (0.029)**	0.022 (0.008)	0.639	16.352 (0)***
IPO +2	131	-0.0018 (0.914)	0.102	2.2856 (0.059)*	0.012 (0.523)	0.449	7.385 (0.0)***
IPO +3	140	-0.0176 (0.327)	0.281	4.6853 (0.001)***	-0.025 (0.240)	0.474	6.2609 (0.0)***
IPO +4	120	-0.0047 (0.033)**	0.115	2.6445 (0.032)**	-0.004 (0.048)**	0.592	10.682 (0.0)***
IPO +5	111	0.0148 (0.327)	0.309	6.4606 (0.00)***	0.035 (0.258)	0.509	6.3634 (0.0)***
IPO +6	151	-0.0026 (0.858)	0.183	3.8257 (0.004)***	-0.092 (0.969)	0.491	4.871 (0.00)***
IPO +7	161	-0.0144 (0.274)	0.248	5.3712 (0.00)***	-0.056 (0.021)**	0.734	11.5817 (0.00)***
IPO +8	160	0.0145 (0.313)	0.324	9.7487 (0)***	-0.018 (0.635)	0.604	6.086 (0.00)***
IPO +9	173	0.0040 (0.745)	0.197	5.6822 (0.00)***	0.020 (0.505)	0.360	2.973 (0.040)**
IPO +10	203	-0.0007 (0.310)	0.043	1.9263 (0.096)*	0.017 (0.520)	0.391	2.7171 (0.078)*
Notes: H1 test result proved only in sub sample of IPO + 4 because statistically $\alpha_1 < 0$ as expected H2 test result proved only in sub samples of IPO+4 and IPO+7 because statistically $\alpha_1 < 0$ as expected							

(Results of Data Analysis with Eviews)

Robustness Test

Robustness test is carried out to see the consistency and to strengthen the results of research. Many ways can be carried out to see the consistency and corroborate research (Brian and Martani, 2014). Robustness test is also conducted based on the results of this study. This is done through changing dependent variable on H1 with book leverage. Also, the dependent variable on H2 is replaced with cumulative change from book leverage. Using the same regression model and same data for independent variables, H1 and H2 are tested again. Robustness test results on both H1 and H2 are similar to the previous test' results. Thus, it can be stated that most of the coefficients of historical market value regression do not negatively affect the capital structure. Therefore, the consistent results of the study show that equity market timing does not have a persistent effect on the capital structure on financial firms listed on the Indonesia Stock Exchange.

Conclusion

The results of hypotheses testing show that the historical market values of equity have no negative effect on the capital structure; in addition, only a few parts of the test indicate that historical market value of equity has negative effect on the capital structure. Based on these results, this study finds out that there

are insufficient evidence to assert that the historical market value of equity affects the capital structure. Therefore, equity market timing does not have a persistent effect on the capital structure of Indonesian firms. If the equity market timing affects the capital structure, its influence is merely temporary. According to Xu (2006), equity market timing that is not persistently affects leverage indicates that there is an immediate process of re-adjusting the capital structure towards the targeted capital structure, the optimum capital structure. The immediate process of re-adjustment is found in the capital structure trade-off theory. The influence of this trade-off theory is in line with the results of research conducted by Darminto and Manurung (2008) that the determinants of the capital structure according to the trade-off theory influence the capital structure of companies in Indonesia. Studies conducted by Brian & Martani (2014) as well as Surwanti (2015) reported that the dynamic trade-off theory is applied in Indonesia since there is a process of speed adjustment towards the targeted capital structure.

For future research agenda, the author provides the following suggestions. The application of the market timing concept has not only influenced the making of the firm's financial policy but also affects the investment policymaking. In behavioral corporate finance, the inefficiency of the market – that irrational investor signals – has significant consequences, i.e., the irrationality of the investor may have an impact on the capital market price or the firm's financial policy, which can lead to the transfer of wealth among investors (Baker & Wurgler, 2012 and Szyszka, 2014). Therefore, in the future, it should also be examined regarding market timing in making investment policies in Indonesian firms.

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Lampiran 3. Sertifikat Call for Paper



This is to certify that

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YKPN School of Business (STIE YKPN) Yogyakarta, Indonesia

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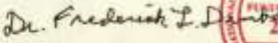
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Conference Chair

Lampiran 4 Surat Serah Terima Laporan Kemajuan



SEKOLAH TINGGI ILMU EKONOMI

YAYASAN KELUARGA PAHLAWAN NEGARA YOGYAKARTA

LEMBAGA PENELITIAN DAN PENGABDIAN MASYARAKAT

JL. SETURAN YOGYAKARTA - 55281 KOTAK POS 101-4 YOGYAKARTA 55010
TELP : (0274) 486160, 486321 Psw. 1120 FAKS : (0274) 486115 E-mail: lppm@stieykn.ac.id

BERITA ACARA SERAH TERIMA LAPORAN KEMAJUAN PELAKSANAAN PENELITIAN

No. 916-1/LPPM/STIE YKPN/IX/2018

Pada hari ini, Jumat 7 September 2018, bertempat di LPPM Sekolah Tinggi Ilmu Ekonomi YKPN Yogyakarta, bertanda tangan di bawah ini:

1. Nama : Dr. Baldric Siregar, MBA, CMA, Ak., CA
NIDN : 0520096903
Jabatan : Ketua Lembaga Penelitian dan Pengabdian Masyarakat STIE YKPN Yogyakarta

Dalam hal ini bertindak untuk dan atas nama LPPM STIE YKPN dalam Berita Acara Penyerahan Laporan Penggunaan Keuangan 70% Hibah Penelitian Berbasis Kompetensi yang selanjutnya disebut sebagai pihak pertama.

2. Nama : Dr. Miswanto, M.Si
NIDN : 0504066301
Jabatan : Dosen Tetap

Dalam hal ini bertindak untuk dan atas nama diri dan/atau Tim Peneliti yang selanjutnya disebut sebagai pihak kedua.

Berdasarkan surat perjanjian pelaksanaan Hibah Penelitian Berbasis Kompetensi Nomor 536/LPPM/STIE YKPN/III/2018, maka pada hari ini pihak kedua menyerahkan Laporan Penggunaan Keuangan 70% Hibah Penelitian Disertasi Doktor beserta dengan dokumen-dokumen pendukungnya dengan judul "Model Penyajian Pelaporan Keuangan Dalam Pengambilan Keputusan yang Efektif dan Efisien" kepada pihak pertama untuk diteruskan kepada Kopertis Wilayah V Yogyakarta.

Berita Acara ini dibuat rangkap 3, untuk dipergunakan sebagaimana mestinya.



Pertama

Dr. Baldric Siregar, MBA, CMA, Ak., CA
NIDN. 0520096903

Pihak Kedua,

Dr. Miswanto, M.Si
NIDN. 0504066301

Lampiran 5 Serah Terima Keuangan



SEKOLAH TINGGI ILMU EKONOMI

YAYASAN KELUARGA PAHLAWAN NEGARA YOGYAKARTA
LEMBAGA PENELITIAN DAN PENGABDIAN MASYARAKAT

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TEL.P : (0274) 496160, 496321 Psw. 1120 FAKS. : (0274) 496115 E-mail: ipm@stieykpn.ac.id

BERITA ACARA SERAH TERIMA LAPORAN PENGGUNAAN KEUANGAN 70%

No. 916/LPPM/STIE YKPN/IX/2018

Pada hari ini, Jumat 7 September 2018, bertempat di LPPM Sekolah Tinggi Ilmu Ekonomi YKPN Yogyakarta, bertanda tangan di bawah ini:

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Jabatan : Dosen Tetap

Dalam hal ini bertindak untuk dan atas nama diri dan/atau Tim Peneliti yang selanjutnya disebut sebagai pihak kedua.

Berdasarkan surat perjanjian pelaksanaan Hibah Penelitian Berbasis Kompetensi Nomor 536/LPPM/STIE YKPN/III/2018, maka pada hari ini pihak kedua menyerahkan Laporan Penggunaan Keuangan 70% Hibah Penelitian Disertasi Doktor beserta dengan dokumen-dokumen pendukungnya dengan judul "Model Penyajian Pelaporan Keuangan Dalam Pengambilan Keputusan yang Efektif dan Efisien" kepada pihak pertama untuk diteruskan kepada Kopertis Wilayah V Yogyakarta.

Berita Acara ini dibuat rangkap 3, untuk dipergunakan sebagaimana mestinya.



Pertama

Dr. Baldric Siregar, MBA, CMA, Ak., CA
NIDN. 0520096903

Pihak Kedua,

Dr. Miswanto, M.Si
NIDN. 0504066301

Lampiran 6 Bukti Tanggung Jawab Keuangan

SURAT PERNYATAAN TANGGUNG JAWAB BELANJA

Yang bertanda tangan di bawah ini :

Nama : Dr MISWANTO S.E., M.Si

Alamat : Wonocatur RT 08/25 No. 411, Desa/Kec.Banguntapan, Kab. Bantul, D.I.

Yogyakarta

berdasarkan Surat Keputusan Nomor 01/E/KPT/2017 dan Perjanjian / Kontrak Nomor 536/LPPM/STIEYKPN/2018 mendapatkan Anggaran Penelitian Model Penyajian Pelaporan Keuangan Dalam Pengambilan Keputusan yang Efektif dan Efisien sebesar 105,000,000 .

Dengan ini menyatakan bahwa :

1. Biaya kegiatan penelitian di bawah ini meliputi :

No	Uraian	Jumlah
01	Honorarium	0
02	Peralatan Penunjang	33,884,748
03	Bahan Habis Pakai	14,352,277
04	Perjalanan Perjalanan	21,393,090
05	Lain-lain Luaran	36.361,342
	Jumlah	105,991,457

2. Jumlah uang tersebut pada angka 1, benar-benar dikeluarkan untuk pelaksanaan kegiatan penelitian dimaksud.

3. Bersedia menyimpan dengan baik seluruh bukti pengeluaran belanja yang telah dilaksanakan.

4. Bersedia untuk dilakukan pemeriksaan terhadap bukti-bukti pengeluaran oleh aparat pengawas fungsional Pemerintah

5. Apabila di kemudian hari, pernyataan yang saya buat ini mengakibatkan kerugian Negara maka saya bersedia dituntut penggantian kerugian negara dimaksud sesuai dengan ketentuan peraturan perundang-undangan.

Demikian surat pernyataan ini dibuat dengan sebenarnya.



ab. Sleman, 27 - 9 - 2018

Ketua,

(Dr MISWANTO, S.E., M.Si)
NIP/NIK 86010388

