



UNIVERSITAS INDONESIA

**AUDIT TATA KELOLA TEKNOLOGI INFORMASI DAN
KOMUNIKASI MELALUI PENDEKATAN
MATURITY ASSESMENT TOOLS COBIT 4.1:
STUDI KASUS PADA PT. SEMEN GRESIK PERSERO, Tbk.**

TESIS

**EVY JUNITA
0906653503**

**FAKULTAS EKONOMI
PROGRAM STUDI MAGISTER AKUNTANSI
JAKARTA
JUNI 2012**



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**Diajukan sebagai salah satu syarat
untuk memperoleh gelar Magister Akuntansi**

**EVY JUNITA
0906653503**

**FAKULTAS EKONOMI
PROGRAM STUDI MAGISTER AKUNTANSI
JAKARTA
JUNI 2012**

HALAMAN PERNYATAAN ORISINALITAS

**Tesis ini adalah hasil karya saya sendiri,
dan semua sumber baik yang dikutip maupun dirujuk
telah saya nyatakan dengan benar.**

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Studi Kasus pada PT. Semen Gresik Persero, Tbk.

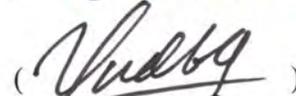
Telah berhasil dipertahankan di hadapan Dewan Penguji dan diterima sebagai bagian persyaratan yang diperlukan untuk memperoleh gelar Magister Akuntansi pada Program Studi Magister Akuntansi, Fakultas Ekonomi, Universitas Indonesia.

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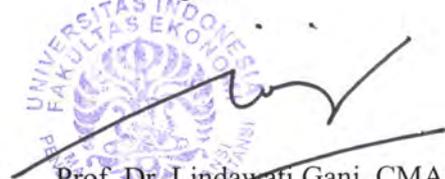
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KATA PENGANTAR

Puji dan syukur alhamdulillah penulis panjatkan kehadiran Allah SWT. dan junjungan Nabi Besar Muhammad SAW. atas segala rahmat, karunia, serta lindungannya dapat menyelesaikan karya penulisan tesis ini tepat pada waktunya dalam rangka meraih gelar Magister Akuntansi dari Universitas Indonesia. Dalam kesempatan ini, penulis ingin menyampaikan rasa hormat dan terima kasih yang tulus kepada pihak yang telah memberikan doa, bimbingan, dukungan, serta bantuan selama proses penulisan tesis ini, terutama kepada :

1. Ibu **Prof. Dr. Lindawati Gani, CMA.**, selaku Ketua Program Studi Maksi – PPAK Fakultas Ekonomi Universitas Indonesia atas ilmu, bimbingan, dan arahan umum yang diberikan selama perkuliahan.
2. Bapak **Dr. Setyo Hari Wijanto** selaku dosen pembimbing yang telah memberikan ilmu, bimbingan, arahan dan waktu kepada penulis selama perkuliahan dan penyusunan tesis ini.
3. Bapak **Dr. Yudho Giri Sucahyo**, selaku dosen penguji yang telah memberikan ilmu, bimbingan, arahan dan waktu kepada penulis selama pelaksanaan sidang dan penyelesaian tesis ini.
4. Bapak **Machmudin Eka Prasetya, M.Ak.**, selaku dosen penguji yang telah memberikan ilmu, bimbingan, arahan dan waktu kepada penulis selama pelaksanaan sidang dan penyelesaian tesis ini.
5. Bapak **Daniel, SE. MTI.**, selaku dosen pembimbing awal yang selalu memberikan dukungan dan arahan kepada penulis untuk menyusun tesis.
6. Suami tercinta, **Muh. Faisal Stany** yang selalu ada untuk meluangkan waktu, tenaga, pikiran dan perhatian dengan penuh kasih sayang selama masa kuliah hingga proses penyusunan tesis ini selesai, juga khususnya putri kami tercinta **Faza Lauzia Faisal**, *you are the best thing in my life.*
7. Ibunda tercinta, **Hj. Siti Mariyam** yang tidak pernah berhenti memberi semangat dan kasih sayang untuk menyelesaikan perkuliahan dan tesis ini.
8. **Bagian Diklat** PT. Semen Gresik Persero, Tbk. yang telah memberikan kesempatan dan informasi selama penelitian dan penyusunan tesis.

9. Ibu **Rini Indrawaty S.Kom.**, selaku Senior Manager pada Team Of Group Tekominfo Development PT. Semen Gresik (Persero), Tbk. yang telah memberikan kesempatan serta data dan informasi selama penelitian maupun penyusunan tesis.
10. Ibu **Hera Milarti SE.**, selaku Kepala Bagian Internal Audit PT. Semen Gresik (Persero), Tbk. yang telah memberikan informasi selama penelitian dan penyusunan tesis.
11. Seluruh **staf TI Divisi SisFo** PT. Semen Gresik (Persero), Tbk. yang telah memberikan data dan informasi selama penelitian tesis.
12. Rekan-Rekan Maksi Kelas G-09/2 **Mba Betty, Bu Maria, Palupi, Galuh, Teguh**, dan lain-lain atas kebersamaan satu rasa sepenanggungan selama masa perkuliahan.
13. Rekan-Rekan Maksi Kelas Konsentrasi Sistem Informasi SIS-09/2 khususnya **Cempaka, Dina dan Mba Isna** yang telah banyak membantu dukungan semangat dan materi selama kuliah dan penyusunan tesis ini, serta **Dhito, Afran, Benhard** buat dukungan dan kerjasamanya selama perkuliahan.
14. **Seluruh Pimpinan dan rekan kerja Tim Pengawasan Bank Syariah 3 Departemen Perbankan Syariah Bank Indonesia**, atas bantuan dan dukungannya demi kelancaran kuliah dan penyusunan tesis, serta kerjasama dan kekompakan selama pelaksanaan kerja.
15. Seluruh **Staf dan Karyawan Sekretariat dan Perpustakaan Magister Akuntansi** Universitas Indonesia.

Semoga Allah SWT. berkenan membalas kebaikan kepada semua pihak yang telah memberikan doa, bimbingan, dukungan, semangat, dan materi baik selama perkuliahan maupun selama proses penyusunan tesis ini. Akhir kata, semoga tesis ini dapat bermanfaat dan memberi ide atau gagasan bagi penelitian yang akan dilakukan oleh pihak lainnya.

Jakarta, Juni 2012

Penulis

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(Evy Junita)

ABSTRAK

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Untuk menjamin pencapaian kinerja berkelanjutan, salah satu strategi PT. Semen Gresik (Persero) Tbk. adalah meningkatkan kualitas aset utamanya yaitu *information capital*. Sejak kuartal IV tahun 2007, sejalan dengan penyusunan strategi dan pengembangan bisnis Perseroan, dilakukan pula penyusunan strategi dan masterplan khusus bidang program teknologi informasi dan komunikasi (ICT) yang dinilai memiliki peran strategis dalam mencapai tujuan bisnis Perseroan.

Investasi dana dan kepedulian manajemen yang sedemikian besar terhadap implementasi master plan program ICT, memerlukan adanya pemeriksaan terhadap tata kelola teknologi informasi dan komunikasi Perseroan apakah sejalan dengan strategi bisnis dan mampu menjadi penguat faktor penunjang. Audit tata kelola teknologi informasi dan komunikasi menggunakan *Maturity Assesment Tools – COBIT 4.1* yaitu penilaian tujuan bisnis melalui *IT Balanced Scorecard* dan audit proses TI untuk memperoleh gambaran tingkat kematangan saat ini dan kesenjangan terhadap rencana jangka pendek maupun jangka panjang yang masih perlu diperbaiki.

Dari hasil audit, diperoleh tingkat kematangan tata kelola teknologi informasi dan komunikasi Perseroan saat ini berada pada level antara 2 (*Repeatable but Intuitive*) dan 3 (*Defined Process*). Perbaikan mendasar yang diperlukan adalah pembentukan unit kerja yang bertanggung jawab terhadap pelaksanaan internal kontrol TI serta dokumentasi kebijakan umum dan proses tata kelola teknologi informasi dan komunikasi, sehingga pengawasan terhadap pelaksanaan kebijakan dapat dilakukan secara efektif dan menjamin adanya penerapan *IT Governance*.

Kata Kunci :

Audit Tata Kelola Teknologi Informasi, *IT Balanced Scorecard*, *Maturity Assesment Tools*, COBIT 4.1

ABSTRACT

Name : Evy Junita
Program of Study : Master of Accounting
Topic : Audit of Information Technology and Communication
Governance By Using Maturity Assesment Tools –
COBIT 4.1 (Case Study in PT. Semen Gresik (Persero))

To ensure the achievement of sustainable performance, one of PT. Semen Gresik (Persero) strategies is to improve the quality of information capital. Since the fourth quarter of 2007, in line with it's formulation of strategy and business development roadmap, the Company also prepares the strategy and master plan of information and communication technology (ICT) to support the business strategies. The Company considers that ICT has a strategic role in achieving the Company business goals.

Investment funds and great concern of management on the implementation of ICT master plan, requires audit on Information and Communication Technology governance, to review whether its implementation in line with the company's business strategies and effectively function as supporting factors in achieving the goals of the company. The audit of ICT governance use the Maturity Assesment Tools – COBIT 4.1, by scoring the business goals using IT Balanced Scorecard to determine the IT goals, and ICT audit process to obtain the current maturity level and to acquire the gap from the sort and long term maturity level target that needs to be fixed.

The audit results show that current maturity level of the company's ICT is in score range of 2 (Repeatable but Intuitive) and 3 (Defined Process). The fundamental improvements is necessary to establish working unit that responsible for the implementation of ICT internal controls and documentation of IT governance policies. It will enable the company to monitor the policy implementation effectively and ensure adequate implementation of IT Governance.

Key words :

Audit of Information and Communication Technology Governance, IT Balanced Scorecard, Maturity Assesment Tools – COBIT 4.1

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BAB 1 PENDAHULUAN

1.1. Latar Belakang

PT. Semen Gresik (Persero) Tbk. merupakan produsen semen terbesar yang memiliki pangsa pasar cukup signifikan baik skala nasional maupun internasional. Perseroan memiliki 2 anak usaha yang bergerak di bidang sama sebagai produsen semen, yaitu PT. Semen Padang (Persero) Tbk. dan PT. Semen Tonasa (Persero) Tbk. dengan mayoritas kepemilikannya di tangan Pemerintah. Hingga saat ini, pangsa pasar yang berhasil diraih Perseroan beserta grupnya mencapai lebih dari 40,80% pasar semen nasional.

Untuk menghadapi tantangan bisnis yang semakin ketat dewasa ini dengan semakin banyak produsen semen melakukan penetrasi pasar dan berpengaruh signifikan, maka direksi dan komisaris Perseroan terus berupaya mengoptimalkan seluruh keunggulan dan peluang yang dimiliki, yaitu lokasi pabrik, kapasitas produksi, jaringan distribusi, pemimpin pasar dan citra merk, kemampuan keuangan, sumber daya manusia, serta penerapan *Corporate Social Responsibility* (CSR). Upaya tersebut diterjemahkan dalam Rencana Jangka Panjang Perusahaan (RJPP) periode 2010 – 2030 sebagai landasan pengembangan di masa datang, yang secara konsisten diupayakan untuk direalisasikan sebagai target tahunan dalam bentuk Rencana Kerja dan Anggaran Perusahaan (RKAP).

Perseroan telah membuat target dan strategi operasional pada RKAP tahun 2011 untuk meraih peluang dan kinerja operasional secara optimal. Strategi inisiatif dititikberatkan kepada hal-hal yang bersifat kritical dengan tetap berlandaskan pada prinsip *Good Corporate Governance* (GCG) yang diterapkan Perseroan, yaitu pertumbuhan kapasitas, pengamanan energi, penguatan citra korporasi, pemenuhan kebutuhan konsumen, penguatan faktor penunjang, dan pengendalian risiko, dengan pola pengelolaan yang berfokus pada *revenue management, cost management, capacity management* dan *improving competitive advantage*. Penerapan RJPP secara konsisten diharapkan mampu mempercepat pertumbuhan berkelanjutan di masa depan. Aspek lain yang harus dilaksanakan untuk menjamin pencapaian kinerja berkelanjutan adalah membangun dan

menjalankan internal control yang efektif dan *risk assessment* yang aplikatif, sehingga Perseroan akan terhindar dari dampak kurang baik yang mungkin timbul dari risiko yang tidak termitigasi.

Strategi penguatan faktor penunjang Perseroan berupaya meningkatkan kualitas aset utamanya, yaitu *organization capital*, *information capital* dan *human capital* – untuk menjadi katalis secara langsung dalam mempercepat pertumbuhan bisnis Perseroan. Salah satu terjemahan dari strategi penguatan tersebut dan sejalan dengan penyusunan strategi dan *roadmap* pengembangan bisnis Perseroan, maka sejak kuartal IV 2007 Perseroan menyusun strategi dan *masterplan* khusus bidang program teknologi informasi dan komunikasi (ICT) untuk menunjang strategi bisnis. Perseroan memandang bahwa ICT memiliki peran strategis dalam pencapaian tujuan-tujuan bisnis Perseroan. Penyusunan *masterplan* ICT dilakukan dengan metodologi yang menjamin keselarasan (*alignment*) antara kebutuhan bisnis dan inisiatif-inisiatif ICT. Wujud dari perkembangan ICT *Masterplan* (ICTMP) telah dimanfaatkan sebagian besar dalam infrastruktur Perseroan, antara lain adanya satu jaringan *backbone group* sehingga seluruh aplikasi, komunikasi, *video conference*, serta konten dapat diakses dari setiap *end point* cabang Perseroan. Selain itu, juga telah diterapkan sentralisasi server aplikasi, sehingga seluruh aplikasi bisnis Perseroan berada di satu tempat sentral yang dapat diakses dari semua tempat.

Layanan IT dalam bisnis (*business service*) dilakukan secara tunggal dan tersentralisasi. Demikian pula pengelolaan layanan bisnis untuk seluruh *Operating Company* (OpCo) juga dilakukan secara tersentralisasi (*shared service*). Dengan *shared service*, maka kebijakan strategis grup dan standarisasi proses bisnis dapat dijaga dengan biaya operasional yang lebih efisien.

Melihat bahwa kepedulian Perseroan terhadap optimalisasi fungsi ICT sedemikian besar, maka perlu dilakukan penelitian dan pengukuran terhadap tata kelola ICT yang telah dan sedang dijalankan oleh Perseroan hingga kini. Penelitian dilakukan untuk meyakini apakah sejalan dengan strategi bisnis Perseroan dan mampu menjadi penguat faktor penunjang untuk mencapai tujuan bisnis Perseroan. Beberapa penilaian tata kelola IT Perseroan yang telah dilakukan, antara lain pada tahun 2009 dilakukan review *IT Governance* terhadap

Semen Gresik Grup (SGG) melalui assesor independen, dan awal tahun 2012 Perseroan mencoba melakukan *self assesment* terhadap tata kelola ICT melalui pendekatan COBIT 4.1.

Penelitian ini dimaksudkan untuk mengevaluasi tata kelola ICT Perseroan, sekaligus melihat pada level berapakah tingkat kematangannya saat ini dibandingkan dengan target yang ingin dicapai Perseroan. Penulis menggunakan pendekatan *Maturity Models* – COBIT 4.1 sebagai alat pengukuran untuk melakukan identifikasi perbaikan ICT yang perlu dilakukan Perseroan.

1.2. Perumusan Masalah

Pelaksanaan tata kelola teknologi informasi dan komunikasi PT. Semen Gresik (Persero) Tbk. secara keseluruhan telah memadai. Untuk itu, penulis akan melakukan evaluasi atas tata kelola teknologi informasi dan komunikasi yang dikembangkan oleh Perseroan untuk mengetahui level kematangan saat ini. Perumusan masalah pokok dalam penulisan tesis ini adalah sebagai berikut :

1. Pada tingkat kematangan (*Maturity Level*) manakah tata kelola teknologi informasi dan komunikasi yang diselenggarakan Perseroan saat ini?
2. Apakah tata kelola teknologi informasi dan komunikasi Perseroan telah memenuhi target *maturity level* yang ingin dicapai?
3. Perbaikan apakah yang dapat dilakukan Perseroan untuk meningkatkan peranan tata kelola teknologi informasi dan komunikasi yang sejalan dengan komitmen tinggi Perseroan atas penerapan *best practices Good Corporate Governance* dalam rangka memaksimalkan nilai Perseroan?

1.3. Tujuan dan Ruang Lingkup Penelitian

Penelitian ini untuk mengukur tingkat kematangan tata kelola teknologi informasi dan komunikasi Perseroan saat ini dibandingkan dengan target yang ingin dicapai, dengan kerangka *maturity models* COBIT 4.1. Hasil pengukuran tersebut menjadi acuan bagi penulis untuk memberikan saran perbaikan yang masih perlu dilakukan agar tata kelola menjadi lebih efektif dan memadai. Hal ini diharapkan TI mampu menjadi penguat faktor penunjang bagi Perseroan untuk memaksimalkan nilai perusahaan dengan tetap berpegang teguh pada prinsip *Good Corporate Governance*.

1.4. Manfaat Penelitian

Manfaat dari penelitian ini adalah Perseroan dapat mengetahui tingkat kematangan tata kelola informasi dan komunikasi yang diterapkan, sehingga dapat dilakukan langkah-langkah perbaikan dan pengembangan tata kelola informasi dan komunikasi menjadi lebih efektif dan sejalan dengan visi misi Perseroan dengan tujuan akhir memaksimalkan nilai perusahaan yang tetap berprinsip pada *Good Corporate Governance*.

1.5. Metode Penelitian

Jenis metode penelitian yang digunakan dalam penelitian ini adalah sebagai berikut :

1. Riset Kepustakaan

Penulis melakukan penelitian dengan menggunakan beberapa sumber teori baik buku, jurnal maupun artikel sebagai referensi terkait dengan audit tata kelola teknologi informasi dan komunikasi, terutama pelaksanaan audit TI dengan kerangka kerja COBIT 4.1.

2. Riset Lapangan

Penulis dalam penyusunan tesis melakukan penggalian data dan informasi mengenai tata kelola teknologi informasi dan komunikasi Perseroan baik secara langsung melalui wawancara, observasi, dan penggunaan *questionnaire* kepada beberapa pihak yang berwenang, maupun penghimpunan data dan informasi melalui internet tentang kebijakan pelaksanaan teknologi informasi dan komunikasi Perseroan.

1.6. Sistematika Penulisan

Penyajian dari tesis ini dilakukan dengan sistematika pembahasan sebagai berikut :

BAB I : PENDAHULUAN

Bab ini akan membahas mengenai latar belakang penelitian, pokok permasalahan, tujuan penelitian, manfaat penelitian, metode penelitian yang digunakan, penelitian sebelumnya, serta sistematika penulisan.

BAB II: LANDASAN TEORI

Bab ini akan berisikan uraian dari hasil studi literatur atas pokok permasalahan, yaitu berkaitan dengan *IT Governance*, *IT Governance Focus Area*, *IT Balanced Scorecard*, COBIT 4.1, dan metode pengukuran dengan *Maturity Models*.

BAB III: LATAR BELAKANG PERUSAHAAN DAN METODOLOGI PENELITIAN

Bab ini akan membahas mengenai gambaran umum perusahaan mengenai visi, misi dan strategi bisnis Perseroan, proses bisnis, kebijakan dan tata kelola teknologi informasi dan komunikasi yang diterapkan saat ini, serta metode penelitian dan tahapan yang akan dilakukan dalam mengukur tingkat kematangan TI.

BAB IV : ANALISIS DAN PEMBAHASAN

Bab ini akan membahas tentang hasil analisis penulis terhadap tata kelola teknologi informasi dan komunikasi Perseroan dengan menggunakan kerangka kerja *Maturity Assesment Tools – COBIT 4.1*.

BAB V : KESIMPULAN DAN SARAN

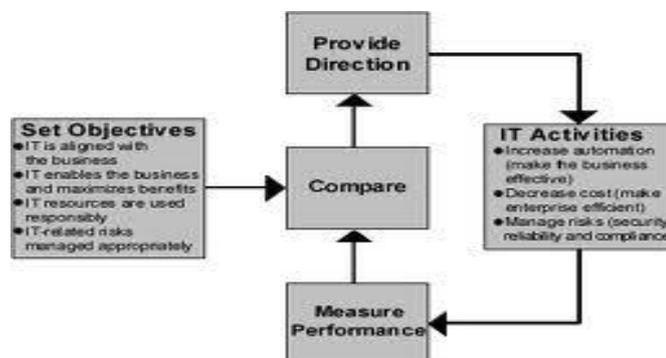
Bab ini akan berisi kesimpulan yang diperoleh penulis berdasarkan penelitian yang telah dilakukan. Selanjutnya, saran diberikan kepada Perseroan dalam rangka optimalisasi tata kelola teknologi informasi dan komunikasi sesuai dengan kaidah *Good Corporate Governance*.

BAB 2

LANDASAN TEORI

2.1. *IT Governance*

Dalam *Core Concepts of IT Auditing*, Hunton (2004) dinyatakan bahwa *IT Governance* adalah proses pengendalian atas sumber daya teknologi informasi suatu perusahaan yang mencakup teknologi sistem informasi dan komunikasi. Manajemen dan pemegang saham (*Board of Directors*) bertanggung jawab untuk melakukan tata kelola organisasi dan TI. Pentingnya *IT Governance* berkembang secara pesat sebagai bagian dari tata kelola organisasi (*Enterprise Governance*) karena ketergantungan organisasi yang sangat tinggi terhadap informasi dan komunikasi, skala investasi, potensi TI untuk menciptakan peluang strategi, maupun level risiko TI. Tujuan dari pengendalian *IT Governance*, selain untuk menjamin adanya kepatuhan terhadap regulator, hukum, maupun perjanjian kontrak yang dilakukan, juga untuk menciptakan strategi melalui TI agar mampu mencapai tujuan organisasi dengan peluang yang semaksimal mungkin dan risiko yang sangat kecil. *IT Governance Framework* secara garis besar memfokuskan kepada beberapa hal utama yaitu : menetapkan tujuan TI organisasi, mengikuti kelangsungan proses dimana kinerja diukur dan diperbandingkan dengan tujuan TI organisasi dengan beberapa petunjuk yaitu mampu meningkatkan sumber daya TI, menurunkan biaya, dan mengelola risiko. Ilustrasi *IT Governance Framework* dapat dilihat pada gambar 2.1.



Gambar 2.1. *The IT Governance Framework*

Sumber : *Core Concepts of IT Auditing* (Hunton, 2004)

Weill dan Ross (2004) mendefinisikan *IT Governance* sebagai “*specifying the decision rights and accountability framework to encourage desirable behavior in using IT*”. Weill dan Ross berpendapat bahwa *IT Governance* bukan hanya sekedar suatu pengambilan keputusan spesifik tentang TI, namun lebih kepada siapa yang secara sistematis membuat keputusan dan siapa yang berkontribusi terhadap pengambilan keputusan tersebut. *IT Governance* merefleksikan adanya penerapan prinsip-prinsip organisasi dengan memfokuskan pada kegiatan manajemen dan penerapan TI dalam suatu pencapaian organisasi. Hal tersebut karena setiap organisasi yang memiliki *IT Governance* yang efektif akan mampu secara aktif merancang satu perangkat mekanisme tata kelola TI (Komite *IT Governance*, Proses Penganggaran, Persetujuan, dsb) yang sangat mendukung perilaku organisasi serta selaras dengan misi, strategi, nilai dan norma serta budaya di dalam organisasi.

Cannon mendefinisikan *IT Governance* sebagai pemimpin yang secara efektif mengawasi kinerja atas investasi teknologi informasi. Menurut Canon, *IT Governance* membagi tingkat integrasi dan pengendalian organisasi atas investasi teknologi informasinya. Canon berpendapat pula, bahwa tingkat integrasi teknologi informasi akan memberi dampak lebih kepada bagaimana suatu organisasi mendefinisikan misi, mencapai tujuan strategis, dan mengkomunikasikan visi organisasi. Terdapat tiga tingkatan pada *IT Governance* yaitu strategis, taktis, dan manajemen operasional. Pimpinan tertinggi (eksekutif) sangat bertanggung jawab dalam menyediakan pedoman strategis dengan kebijakan dan keputusan untuk mendefinisikan tujuan; Pimpinan departemen menyediakan manajemen taktis dengan standar dan rencana untuk para bawahan; serta fungsi operasional dan prosedur dikendalikan oleh manajer yang dilaksanakan oleh seluruh para karyawan.

ITGI (2007) dalam *Executive Overview* menyatakan bahwa “*IT Governance is the responsibility of the board of Directors and executive management. It is an integral part of enterprise governance and consists of the leadership and organizational structures and processes that ensure that the organization’s IT sustain and extends the organization’s strategy and objectives*”.

IT Governance memberikan perhatian utama pada dua aspek, yaitu :

- a. Bagaimana TI memberikan nilai tambah bagi bisnis, yang dapat dipicu oleh keselarasan strategis antara bisnis dan TI.
- b. Penanganan risiko pada implementasi TI, yang dipengaruhi oleh prinsip akuntabilitas organisasi.

IT Governance mengintegrasikan dan menginstitusikan praktek yang baik untuk memastikan bahwa TI sangat mendukung tujuan suatu usaha. *IT Governance* memungkinkan perusahaan mengambil keuntungan penuh dari informasinya, sehingga memaksimalkan keuntungan, memanfaatkan peluang dan mendapatkan keuntungan kompetitif.

2.2. IT Governance Focus Area

Terdapat lima domain utama *IT Governance* menurut ITGI, meliputi :

- a. *Strategic alignment*, fokus pada memastikan hubungan antara perencanaan bisnis dan TI; mendefinisikan, memelihara, dan validasi usulan nilai TI; dan menyelaraskan pekerjaan antara TI dan perusahaan.
- b. *Value delivery*, fokus untuk menjalankan usulan TI sepanjang siklus pengiriman, memastikan bahwa TI memberikan keuntungan melalui strategi yang dijanjikan, berkonsentrasi pada optimalisasi biaya dan membuktikan nilai intrinsik dari TI.
- c. *Risk management*, membutuhkan kesadaran risiko oleh pejabat perusahaan senior, pemahaman yang jelas tentang hasrat perusahaan pada risiko, pemahaman persyaratan kepatuhan, transparansi risiko signifikan perusahaan dan menanamkan tanggung jawab manajemen risiko ke dalam organisasi.
- d. *Resource management*, adalah tentang investasi yang optimal, dan pengelolaan yang tepat, sumber daya TI kritis: aplikasi, informasi, infrastruktur dan orang-orang, isu-isu kunci berhubungan dengan optimasi pengetahuan dan infrastruktur.
- e. *Performance measurement*, yaitu melacak dan mengawasi pelaksanaan strategi, penyelesaian proyek, penggunaan sumber daya, proses kinerja dan pelayanan, dan menggunakan *balanced scorecard* yang menerjemahkan strategi ke dalam tindakan untuk mencapai tujuan yang terukur melebihi akuntansi konvensional.



Gambar 2.2. *IT Governance Focus Area*

Sumber : COBIT 4.1

2.3. Balanced Scorecard (BSC)

Kaplan dan Norton (1996) mengenalkan konsep BSC sebagai alat evaluasi perusahaan. Awalnya, BSC dirancang di lingkungan universitas untuk digunakan oleh eksekutif bisnis sebagai metrik pelaporan. Ide dasarnya bahwa evaluasi organisasi seharusnya tidak dibatasi hanya pada keuangan tradisional tetapi harus dilengkapi pula dengan tahapan kepuasan pelanggan, proses internal dan kemampuan berinovasi. Langkah tambahan diperlukan untuk menjamin masa depan keuangan organisasi dan mendorong organisasi ke arah tujuan strategis dan menjaga keempat perspektif tetap seimbang.

BSC membantu eksekutif dalam menerjemahkan visi dan strategi perusahaan ke dalam seperangkat ukuran kinerja yang terpadu dengan kerangka kerja yang komprehensif. BSC menerjemahkan misi dan strategi ke dalam berbagai tujuan dan ukuran ke dalam empat perspektif yaitu *financial*, *customer*,

internal business process, dan *growth and learning*. Pengukuran dilakukan sebagai alat pengendali perilaku dan alat untuk mengevaluasi masa lalu.

Perspektif keuangan sangat penting sebagai ukuran karena memberikan gambaran apakah langkah strategis yang diambil perusahaan melalui tindakan ekonomisnya dapat memberikan kontribusi pada peningkatan laba perusahaan. Ukuran keuangan yang dapat digunakan antara lain laba operasi, *return on capital employed*, *economic value added*.

Perspektif *customer* adalah salah satu tujuan perusahaan terkait pelanggan dan target pasar. Ukuran utamanya adalah kepuasan pelanggan, retensi pelanggan, akuisisi pelanggan baru, profitabilitas pelanggan, dan sasaran segmen pasar.

Perspektif *internal business process* memberikan pengukuran mengenai proses internal penting yang harus dikuasai oleh perusahaan dalam rangka memberikan kontribusi laba dan menarik pelanggan dalam sasaran segmen pasar.

Perspektif *learning and growth* mengidentifikasi infrastruktur yang harus dibangun perusahaan dalam mencapai tujuan perusahaan untuk menciptakan pertumbuhan dan peningkatan kinerja dalam jangka panjang.

Kaplan dan Norton (1996) mengemukakan walaupun fokus dan aplikasi awal BSC adalah untuk sektor swasta, namun penggunaan BSC pada perusahaan pemerintah dan nirlaba memberikan peluang lebih besar untuk meningkatkan kinerja manajemen. Bagi perusahaan nirlaba, perspektif finansial bukan menjadi tujuan utama, karena terkait dengan adanya batasan anggaran yang dapat mereka pergunakan. Tujuan utama bagi perusahaan pemerintah dan perusahaan nirlaba adalah bagaimana mereka dapat mengelola perusahaan dengan efektif dan efisien untuk memenuhi berbagai aturan pokok perusahaan.

Contoh penggunaan BSC pada perusahaan pemerintah yang diberikan Kaplan dan Norton adalah penerapan BSC pada Pemerintah Federal California, Amerika Serikat. Perspektif finansial mereka berfokus pada akuntabilitas keuangan sebagai pengurus keuangan kota yang diukur melalui peringkat layanan air, peringkat layanan pengumpulan sampah, biaya per kapita per departemen, proses kompensasi pemeriksaan medis, dan ukuran lain yang dititikberatkan pada peran pelanggan dan pekerja dalam penetapan tujuan dan faktor pendorong kinerja mereka.

2.4.IT Balanced Scorecard vs IT Governance

Menurut Cannon (2008:p125), menetapkan tujuan strategis tanpa perencanaan dan definisi yang tepat merupakan kelalaian. Salah satu alat perencanaan eksekutif tersedia yang paling baik untuk digunakan adalah BSC, metodologi strategi yang dirancang untuk eksekutif senior.

IT BSC merupakan *balanced scorecard* yang diterapkan pada fungsi-fungsi TI dan prosesnya. IT BSC seharusnya merupakan subset dari BSC organisasi secara keseluruhan. Jika BSC diterapkan secara tepat, maka akan diperoleh kesesuaian yang lebih baik yaitu dengan pendefinisian secara rinci tujuan strategis perusahaan. Penggunaan BSC akan mengurangi aktifitas yang tidak bernilai strategis atau bernilai strategis namun sangat kecil.

Pendekatan BSC dalam *IT Governance* mengubah tujuan organisasi mengenai persepsi pelanggan, proses bisnis, pembelajaran dan pertumbuhan karyawan, dan tujuan keuangan ke dalam beberapa rangkaian aksi (inisiatif).

Van Grembergen dalam jurnalnya "*The Balanced Scorecard and IT Governance*" menyebutkan bahwa *IT Governance* adalah bagian dari *Corporate Governance* dan memberikan suatu struktur bagi organisasi untuk memungkinkan penciptaan nilai bisnis melalui TI, jaminan bahwa tidak ada investasi dalam proyek-proyek TI yang buruk dan ada mekanisme kontrol TI yang memadai. Metodologi *Balanced Scorecard* adalah sistem pengukuran dan manajemen yang sangat cocok untuk mendukung proses *IT Governance* dan *IT Business Alignment*.

IT Development BSC dan *IT Operational BSC*, keduanya berpengaruh pada *IT Strategic BSC* yang pada gilirannya adalah memberikan pengaruh pada *Business BSC*. *BSC cascade* ini menjadi satu rangkaian tindakan yang akan berperan dalam menyelaraskan TI dan strategi bisnis dan akan membantu untuk menentukan bagaimana nilai bisnis yang dibuat melalui TI.

Menurut Van Grembergen, IT BSC terdiri dari empat perspektif yaitu *business contribution*, *user orientation*, *operational excellence*, dan *future orientation*. *Business Contribution* merupakan perspektif yang mencakup nilai bisnis dari investasi TI sebagaimana dapat dilihat pada Tabel 2.1. Perspektif ini merupakan translasi dari perspektif finansial di *Business BSC*. *User Orientation* pada dasarnya sama seperti perspektif pelanggan.

Operational Excellence adalah bagaimana proses TI dikerjakan untuk mengembangkan dan mengirimkan aplikasi (perspektif internal), sedangkan *Future Orientation* merupakan gambaran sumber daya manusia dan teknologi yang dibutuhkan oleh TI untuk dapat memberikan layanannya (perspektif *learning and growth*). Keempat perspektif ini harus diterjemahkan dalam metrik yang sesuai dan pengukuran yang dapat dipakai untuk menilai situasi saat ini.

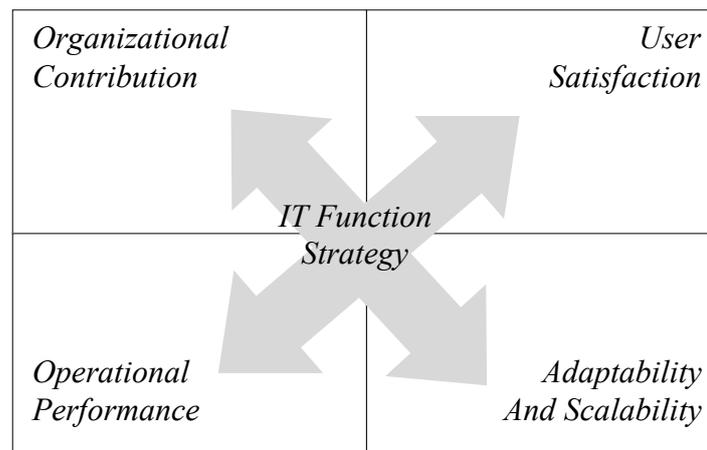
Tabel 2.1. “*IT Balanced Scorecard*”

<i>Business Perspektif</i>	<i>IT perspektif</i>	<i>Actions/Initiatives</i>
<i>Financial</i>	Business Contributions →	1 Provide a good return on investment of IT-enabled business investments.
		2 Manage IT-related business risk
		3 Improve corporate governance and transparency.
<i>Customer</i>	User Orientation →	4 Improve customer orientation and service.
		5 Offer competitive products and services.
		6 Establish service continuity and availability.
		7 Create agility in responding to changing business requirements (time to market)
		8 Achieve cost optimisation of service delivery.
		9 Obtain reliable and useful information for strategic decision making
<i>Internal</i>	Operational Excellence	10 Improve and maintain business process functionality.
		11 Lower process costs.
		12 Provide compliance with external laws, regulations and contracts.
		13 Provide compliance with internal policies.
		14 Manage business change.
		15 Improve and maintain operational and staff productivity.
<i>Learning</i>	Future Orientation →	16 Manage product and business innovation.
		17 Acquire and maintain skilled and motivated people.

Sumber : *Information Systems Control Jurnal, Vol. 2-2002* (telah diolah kembali)

2.5. IT Function Scorecard

Konsep *Balanced Scorecard* dapat digunakan untuk merencanakan dan memantau tujuan TI yang disebut sebagai *IT Function Scorecard*, terdiri dari 4 perspektif utama yaitu : *organizational contribution*, *user satisfaction*, *operational performance*, *adaptability* dan *scalability*. Hal tersebut dapat dijelaskan sebagaimana Gambar 2.3 berikut ini.



Gambar 2.3. IT Function Scorecard

Sumber : *Core Concepts of IT Auditing* (Hunton, 2004)

Penetapan perspektif tersebut berdasarkan penyetaraan dari perspektif utama BSC dan *IT Balanced Scorecard* sebagaimana Tabel 2.1 sebelumnya. Secara ringkas penyetaraan tersebut dapat digambarkan pada Tabel 2.2.

2.6. Kerangka Kerja COBIT 4.1

Control Objectives for Information and related Technology (COBIT) adalah suatu panduan standar praktik manajemen teknologi informasi. Standar COBIT dikeluarkan oleh *IT Governance Institute* yang merupakan bagian dari ISACA (*Information Systems Audit and Control Association*) pada tahun 1992. Sampai saat ini ITGI telah mengeluarkan COBIT hingga edisi keempat yang diterbitkan pada bulan Desember 2005.

ISACA mengemukakan bahwa COBIT merupakan kerangka tata kelola TI dan alat pendukung yang memungkinkan manajer menjembatani kesenjangan antara kebutuhan pengendalian, masalah teknis dan risiko usaha. COBIT memungkinkan pengembangan kebijakan yang jelas dan praktek yang baik untuk pengendalian TI seluruh organisasi. COBIT menekankan kepatuhan pada peraturan, membantu organisasi untuk meningkatkan nilai dari TI, memungkinkan penyelarasan dan menyederhanakan pelaksanaan kerangka COBIT.

Agar TI berhasil memenuhi kebutuhan bisnis, maka manajemen harus memiliki sistem pengendalian internal atau kerangka kerja pada tempatnya. Struktur pengendalian COBIT memberikan kontribusi terhadap kebutuhan ini dengan cara :

- Membuat link ke kebutuhan bisnis.
- Mengorganisasikan kegiatan TI ke dalam model proses yang berlaku umum.
- Mengidentifikasi asset utama TI untuk dimanfaatkan.
- Mendefinisikan tujuan pengendalian manajemen untuk dipertimbangkan.

COBIT berorientasi pada bagaimana menghubungkan tujuan bisnis dengan tujuan TI, menyediakan *metric* dan *maturity model* untuk mengukur pencapaiannya, dan mengidentifikasi tanggung jawab terkait bisnis dan pemilik proses TI.

Penilaian *capability process* berdasarkan *maturity model* COBIT merupakan bagian penting dari implementasi *IT Governance*. Setelah mengidentifikasi proses kritis TI dan pengendaliannya, *maturity modeling* memungkinkan gap teridentifikasi dan ditunjukkan pada manajemen. Dengan mengetahui gap tersebut, maka selanjutnya rencana kerja dapat dikembangkan sampai dengan sasaran *capability level* yang diharapkan.

Dengan demikian, COBIT mendukung pengelolaan TI dengan menyediakan kerangka untuk memastikan bahwa :

- TI sejalan dengan bisnis;
- TI memungkinkan bisnis dan memaksimalkan keuntungan;
- Sumber daya TI digunakan secara bertanggung jawab; dan
- Risiko TI ini dikelola dengan tepat.

Tabel 2.2. Penyetaraan BSC dengan *IT Function Scorecard*

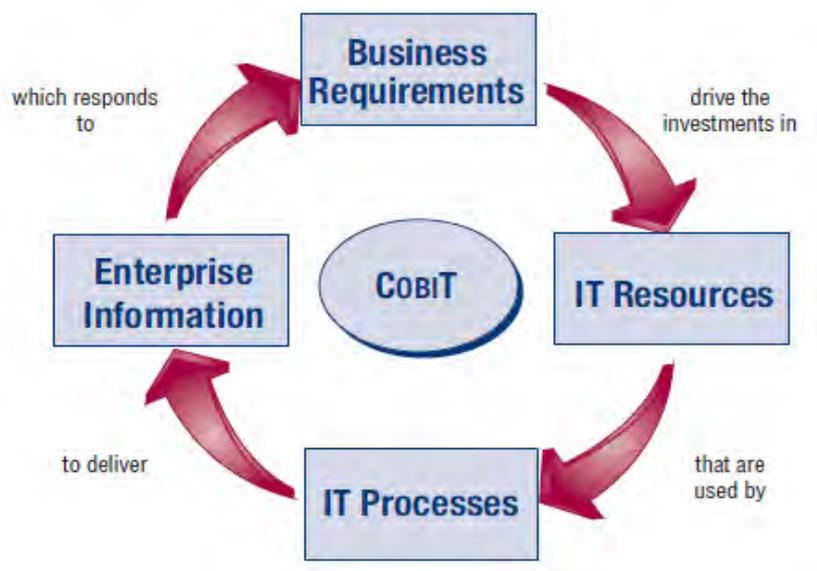
<i>Perspektif BSC</i>	<i>IT Function Scorecard</i>	Kegiatan
<i>Financial</i>	<i>Organizational Contribution</i>	Mengevaluasi kontribusi fungsi TI terhadap perusahaan, yang dapat diukur melalui <i>Return on IT Investment</i> , <i>Discounted cash flow of IT projects</i> , dan perbandingan biaya transaksi sebelum dan sesudah implementasi proyek TI.
<i>Customer</i>	<i>User Satisfaction</i>	Melakukan survei periodik kepada pengguna TI atas keandalan sistem, kemudahan penggunaan, hubungan antar staf TI.
<i>Internal</i>	<i>Operational Performance</i>	Mengukur kinerja TI dengan beberapa indikator seperti sistem pengamanan TI, permintaan pekerjaan tertunda (<i>backlogged request</i>), dan prosentase kegagalan sistem.
<i>Learning and Growth</i>	<i>Adaptibility and Scalability</i>	Mengukur pengembangan sumber daya dalam membangun hubungan antar aplikasi, kemudahan integrasi teknologi baru ke dalam arsitektur TI yang ada, dan kemampuan beradaptasi secara cepat dengan perkembangan TI perusahaan secara keseluruhan.

Sumber : *Core Concepts of IT Auditing (Hunton, 2004)*

2.7. Karakteristik Utama Kerangka Kerja COBIT 4.1.

Saat ini, manajemen puncak semakin menyadari pengaruh signifikan dari TI bagi kesuksesan perusahaan. Manajemen puncak perlu mengetahui apakah informasi telah dikelola dengan baik, memahami risiko yang ditimbulkan informasi, serta bagaimana mengembangkan keunggulan teknologi informasi. Agar dapat memenuhi kebutuhan perusahaan akan informasi tersebut, maka diperlukan tata kelola dan kerangka kerja sebagai acuan bagi pengelolaan TI perusahaan. ITGI menciptakan kerangka kerja COBIT sebagai upaya untuk memenuhi kebutuhan tersebut.

Kerangka kerja COBIT memiliki empat karakteristik utama yaitu: *business focused*, *process-oriented*, *controls-based*, *measurement driven*. Kerangka kerja COBIT sebagaimana ditampilkan pada Gambar 2.4. berikut ini.



Gambar 2.4. “Prinsip dasar COBIT”

Sumber : COBIT 4.1

2.7.1. *Business Focused*

Business Focused/Business Orientation merupakan tema utama dari COBIT agar dapat memberikan pedoman komprehensif bagi manajemen dan pemilik proses bisnis. Prinsip dasar dari kerangka kerja COBIT adalah dalam rangka memberikan informasi yang diperlukan perusahaan untuk mencapai tujuannya, maka perusahaan perlu melakukan investasi, mengelola serta mengendalikan sumber daya TI melalui seperangkat proses terstruktur untuk menyediakan layanan yang dapat menghasilkan informasi yang dibutuhkan perusahaan.

Informasi yang dapat memenuhi kebutuhan perusahaan adalah yang memenuhi kriteria efektivitas, efisiensi, kerahasiaan, integritas, ketersediaan, kepatuhan, dan keandalan. Kriteria informasi tersebut menjadi metode yang umum untuk mendefinisikan kebutuhan bisnis, mendefinisikan rangkaian tujuan bisnis dan tujuan TI, memberikan dasar bisnis terkait untuk membangun kebutuhan bisnis secara lebih halus dan mengembangkan metrik yang memungkinkan pengukuran terhadap tujuan ini.

2.7.2. *Process Oriented*

Kerangka kerja COBIT memberikan model referensi proses untuk dapat mengamati dan mengelola aktifitas TI. COBIT juga menyediakan kerangka kerja untuk mengukur dan memonitor kinerja TI, berkomunikasi dengan penyedia layanan dan memadukan praktek-praktek manajemen terbaik. Sebuah model proses mendorong kepemilikan proses, memungkinkan tanggung jawab dan akuntabilitas untuk didefinisikan.

COBIT membagi model prosesnya menjadi empat domain yang saling berhubungan, yaitu :

1. *Plan and Organise (PO)*

Domain ini mencakup strategi dan taktik, dan perhatian pada bagaimana TI dapat memberikan kontribusi pada pencapaian tujuan dan sasaran usaha.

Domain ini terdiri dari sepuluh proses TI, yaitu :

1. *PO1 Define a strategic IT plan*
2. *PO2 Define the information architecture*
3. *PO3 Determine technological direction.*
4. *PO4 Define the IT processes, organization and relationships.*
5. *PO5 Manage the IT investment.*
6. *PO6 Communicate management aims dan direction.*
7. *PO7 Manage IT human resources.*
8. *PO8 Manage quality.*
9. *PO9 Asses and manage IT risks.*
10. *PO10 Manage projects.*

Inti pertanyaan dari domain ini adalah mengenai hal-hal sebagai berikut :

- Apakah TI dan strategi bisnis perusahaan telah sejalan?
- Apakah perusahaan mencapai level optimal dalam penggunaan sumber daya?
- Apakah semua sumber daya manusia dalam perusahaan memahami tujuan TI?
- Apakah risiko TI dipahami dan dikelola dengan baik?
- Apakah kualitas TI telah sesuai dengan kebutuhan bisnis perusahaan?

2. *Acquire and Implement (AI)*

Untuk mewujudkan strategi TI, solusi TI perlu diidentifikasi, dikembangkan atau diperoleh, serta diimplementasikan dan diintegrasikan ke dalam proses bisnis. Selain itu, perubahan dan pemeliharaan sistem yang ada dilindungi oleh domain ini untuk terus memastikan bahwa solusi TI memenuhi tujuan bisnis. Domain ini terdiri dari :

1. *AI1 Identify automated solutions.*
2. *AI2 Acquire and maintain application software.*
3. *AI3 Acquire and maintain technology infrastructure.*
4. *AI4 Enable operation and use.*
5. *AI5 Procure IT resources.*
6. *AI6 Manage changes.*
7. *AI7 Install and accredit solutions and changes.*

Adapun arah dari pertanyaan domain ini adalah sebagai berikut :

- Apakah proyek baru mampu memberi solusi atas kebutuhan bisnis?
- Apakah proyek baru selesai tepat waktu sesuai rencana anggaran?
- Apakah sistem yang baru dapat diimplementasikan dengan baik?
- Apakah perubahan dapat terjadi tanpa adanya perubahan operasional bisnis saat ini?

3. *Deliver and Support (DS)*

Domain ini berkaitan dengan pengiriman aktual jasa yang dibutuhkan, yang meliputi pelayanan, pengelolaan keamanan dan kontinuitas, layanan dukungan bagi pengguna, dan pengelolaan data dan fasilitas operasional. Domain ini terdiri dari :

1. *DS1 Define and manage service levels.*
2. *DS2 Manage third-party services.*
3. *DS3 Manage performance and capacity.*
4. *DS4 Ensure continuous service.*
5. *DS5 Ensure systems security.*
6. *DS6 Identify and allocate costs.*
7. *DS7 Educate and train users.*

8. DS8 *Manage service desk and incidents.*
9. DS9 *Manage the configuration.*
10. DS10 *Manage problems.*
11. DS11 *Manage data.*
12. DS12 *Manage the physical environment.*
13. DS13 *Manage operations.*

Arahan dari pertanyaan domain ini adalah mengenai sebagai berikut :

- Apakah perbaikan TI dilakukan sesuai prioritas bisnis perusahaan?
- Apakah biaya TI yang dikeluarkan optimal?
- Apakah perusahaan telah menggunakan TI secara aman dan produktif?
- Apakah sistem pengamanan informasi telah ada kerahasiaan, integritas, dan ketersediaan yang baik?

4. *Monitor and Evaluate (ME)*

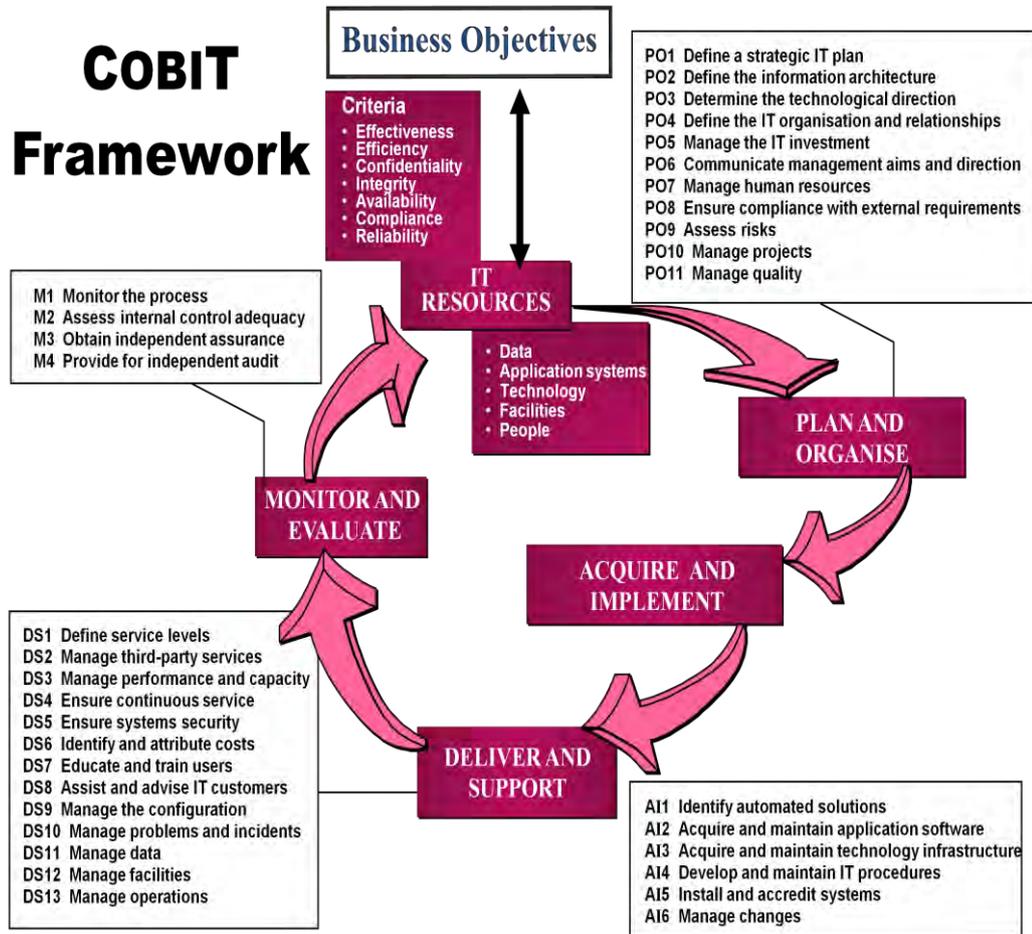
Semua proses TI perlu dinilai secara teratur dari waktu ke waktu untuk memastikan kualitas dan memenuhi persyaratan pengendalian. Domain ini mengedepankan kinerja manajemen, pemantauan pengendalian internal, kepatuhan terhadap peraturan dan tata kelola. Domain ini terdiri dari :

1. ME1 *Monitor and evaluate IT performance.*
2. ME2 *Monitor and evaluate internal control.*
3. ME3 *Ensure compliance with external requirements.*
4. ME4 *Provide IT governance.*

Inti dari pertanyaan domain ini adalah mengenai :

- Apakah kinerja TI dapat mendeteksi secara dini setiap permasalahan?
- Apakah manajemen dapat memastikan internal kontrol telah efisien dan efektif?
- Mampukah kinerja TI sesuai dengan tujuan bisnis perusahaan?
- Apakah ada pengendalian atas kerahasiaan, integritas, dan ketersediaan dalam sistem pengamanan informasi?

Keseluruhan kerangka COBIT dengan model proses COBIT dari empat domain masing-masing *plan and organise, acquire and implement, deliver and support, dan monitor and evaluate*, serta penjabaran ke dalam 34 proses TI secara rinci dapat dilihat pada Gambar 2.5 berikut ini :



Gambar 2.5. “COBIT Framework”

Sumber : COBIT 4.1

2.7.3. Control Based

Sistem pengendalian internal perusahaan mempengaruhi TI melalui tiga tingkatan, yaitu :

- Level manajemen eksekutif, pada saat menetapkan tujuan usaha, kebijakan perusahaan diadakan dan keputusan dibuat untuk menentukan bagaimana menyebarkan dan mengelola sumber daya untuk melaksanakan strategi

perusahaan. Pendekatan seluruh tata kelola dan pengendalian ditetapkan oleh dewan dan dikomunikasikan ke seluruh perusahaan. Lingkungan pengendalian TI diarahkan dengan penetapan tujuan dan kebijakan.

- Level proses bisnis, pengendalian diterapkan pada aktivitas bisnis tertentu. Sejalan dengan makin banyaknya proses bisnis yang diotomatisasi dan terintegrasi dengan sistem aplikasi, menyebabkan proses pengendaliannya juga dilakukan secara otomatis. Hal ini disebut pengendalian aplikasi (*applications controls*). Sebagai contoh pengendalian aplikasi adalah kelengkapan (*completeness*), keakuratan (*accuracy*), validitas, otorisasi, dan pemisahan fungsi (*segregation of duties*).
- Level pendukung proses bisnis, aktifitas TI biasanya disebar ke seluruh proses bisnis. Pengendalian diterapkan pada semua aktifitas TI pendukung tersebut. Ini yang dikenal dengan pengendalian umum TI (*IT General Controls*). Pengendalian umum dapat berupa *system development, change management, security, dan computer operations*.

2.7.4. Measurement Driven

Perusahaan memerlukan pengukuran untuk mengetahui pada level mana mereka berada dan perbaikan apa yang diperlukan. Untuk itu diperlukan perlengkapan yang dapat digunakan manajemen untuk memantau perbaikan yang diperlukan tersebut. Beberapa perangkat yang disediakan oleh COBIT untuk melakukan pengukuran adalah :

- *Maturity models*, untuk melakukan perbandingan dan identifikasi perbaikan kemampuan yang diperlukan perusahaan.
- *Performance goals* dan metrik proses TI, untuk menunjukkan bagaimana proses bisnis memenuhi tujuan bisnis dan tujuan TI serta digunakan untuk mengukur kinerja proses internal berdasarkan prinsip *balanced scorecard*.
- *Activity goals* untuk memungkinkan kinerja proses yang efektif.

2.8. Maturity Models

Salah satu perangkat yang dapat digunakan perusahaan untuk melakukan pengukuran tingkat pengelolaan TI adalah *Maturity Models* yang memeringkatkan

proses TI perusahaan pada level 0 (*non existent*) hingga level 5 (*optimised*). *Maturity Model* membantu manajemen dalam hal :

- Meningkatkan kesadaran *IT Governance* dan kebutuhan akan hal tersebut.
- Menilai level kematangan proses TI saat ini.
- Melakukan analisis kesenjangan antara keadaan saat ini dan masa depan dari proses TI.
- Mengidentifikasi perbaikan pematangan proses TI ke level yang diharapkan manajemen.
- Memungkinkan manajemen untuk mengikuti proses evolusi *IT Governance* dan perbaikan proses TI dalam organisasi mereka.

Dengan menggunakan *Maturity Models* untuk masing-masing 34 proses TI COBIT, maka manajemen dapat mengidentifikasi :

- Kinerja aktual dari perusahaan, yaitu dimana posisi perusahaan saat ini.
- Status saat ini dari industri terkait sebagai pembandingan.
- Target perbaikan perusahaan.
- Pertumbuhan yang dibutuhkan perusahaan, yaitu kondisi diantara “*as-is*” dan “*to-be*”.

Maturity models menyajikan metode presentasi grafis yang digunakan untuk menunjukkan tingkat kematangan kemampuan perusahaan dalam tata kelola TI. Sementara *Graphic Representation of Maturity Models* sebagaimana pada Gambar 2.6 menunjukkan status *maturity level* perusahaan yang dicapai saat ini, rata-rata level di tingkat industri, dan target level yang diharapkan untuk dicapai.



Gambar 2.6. *Graphic Representation of Maturity Models*

Sumber : COBIT 4.1

Secara rinci *maturity level* dapat dilihat pada Tabel 2.3. berikut ini :

Tabel 2.3. *Generic Maturity Model*

Level	Condition
<i>0 Non-existent</i>	<i>Complete lack of any recognisable processes. The enterprise has not even recognised that there is an issue to be addressed.</i>
<i>1 Initial/Ad Hoc</i>	<i>There is evidence that the enterprise has recognised that the issues exist and need to be addressed. There are, however, no standardised processes; instead, there are ad hoc approaches that tend to be applied on an individual or case-by-case basis. The overall approach to management is disorganised.</i>
<i>2 Repeatable but Intuitive</i>	<i>Processes have developed to the stage where similar procedures are followed by different people undertaking the same task. There is no formal training or communication of standard procedures, and responsibility is left to the individual. There is a high degree of reliance on the knowledge of individuals and, therefore, errors are likely.</i>
<i>3 Defined Process</i>	<i>Procedures have been standardised and documented, and communicated through training. It is mandated that these processes should be followed; however, it is unlikely that deviations will be detected. The procedures themselves are not sophisticated but are the formalisation of existing practices.</i>
<i>4 Managed and Measurable</i>	<i>Management monitors and measures compliance with procedures and takes action where processes appear not to be working effectively. Processes are under constant improvement and provide good practice. Automation and tools are used in a limited or fragmented way.</i>
<i>5 Optimised</i>	<i>Processes have been refined to a level of good practice, based on the results of continuous improvement and maturity modelling with other enterprises. IT is used in an integrated way to automate the workflow, providing tools to improve quality and effectiveness, making the enterprise quick to adapt.</i>

Sumber : COBIT 4.1

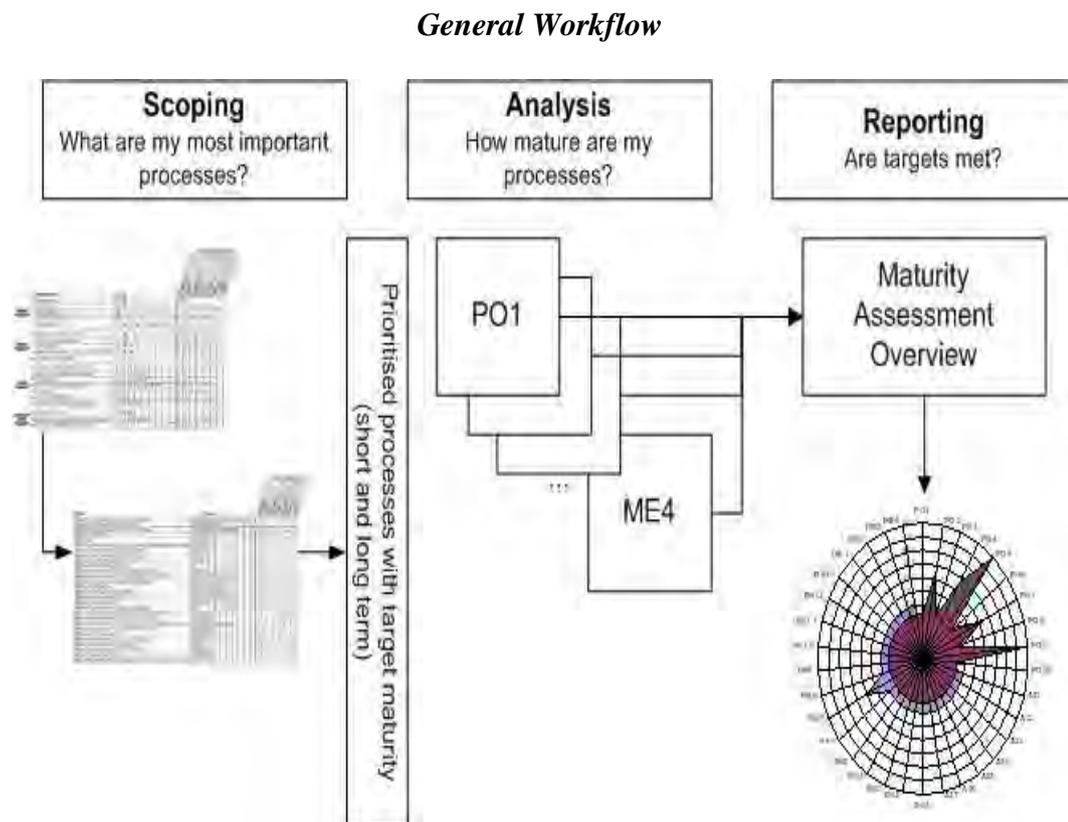
Untuk membantu manajemen dalam melakukan penilaian terhadap proses TI-nya, COBIT menyediakan suatu alat yang dinamakan *Maturity Assesment Tool*-COBIT 4.1 untuk memberikan :

1. Cara yang efisien dan efektif untuk memanfaatkan peluang perbaikan proses TI yang difokuskan di masa depan;
2. Mekanisme prioritas berdasarkan tujuan bisnis dan TI;
3. Identifikasi input penting bagi rencana kerja strategis maupun taktis.

Maturity Assesment Tool-COBIT 4.1 terdiri dari tiga modul utama, yaitu :

- *Scoping*, mengidentifikasi proses yang paling penting bagi suatu organisasi tertentu dan didasarkan pada Tujuan Bisnis dan Tujuan TI.
- *Analysis*, menganalisis tingkat kematangan tata kelola TI saat ini (*current maturity*) dari proses yang dipilih, berdasarkan *COBIT Maturity Model*.
- *Reporting*, kematangan proses yang dinilai dapat dibandingkan dengan target yang ditetapkan untuk mengidentifikasi gap. Umpan balik diberikan pada kesenjangan yang berbobot, berdasarkan kepentingan proses relatif.

Gambaran alur kerja melalui alat ini yang berdasarkan tiga modul dapat dilihat pada Gambar 2.7.

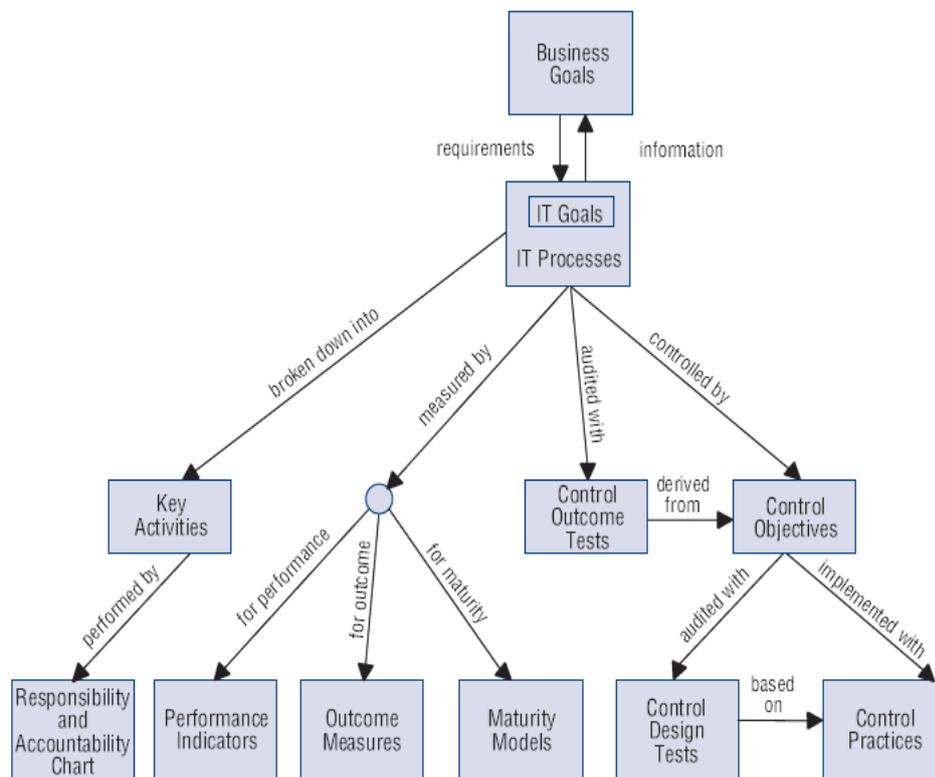


Gambar 2.7. *General Workflow of Maturity Model*

Sumber : *COBIT Maturity Assesment Tool User Guide*

Menurut ISACA (2009) terdapat 2 macam teknik perhitungan *maturity level*, yaitu perhitungan sama dan bertingkat. Teknik perhitungan sama menunjukkan nilai kontribusi yang sama pada kolom “*contribution*” yaitu 1 kecuali pada level 0 (*non existent*) yang bernilai 0. Sementara itu, teknik perhitungan bertingkat menggunakan proporsi kontribusi lebih besar pada *maturity level* yang lebih tinggi.

Dari berbagai teori di atas, terdapat rangkaian interaksi antara berbagai komponen COBIT sebagaimana yang dikemukakan oleh ITGI (2007) dalam gambar berikut ini :



Gambar 2.8. *Interrelationships of COBIT Components*

Sumber : ITGI (2007)

BAB 3

LATAR BELAKANG PERSEROAN DAN METODOLOGI PENELITIAN

3.1. Latar Belakang Perseroan

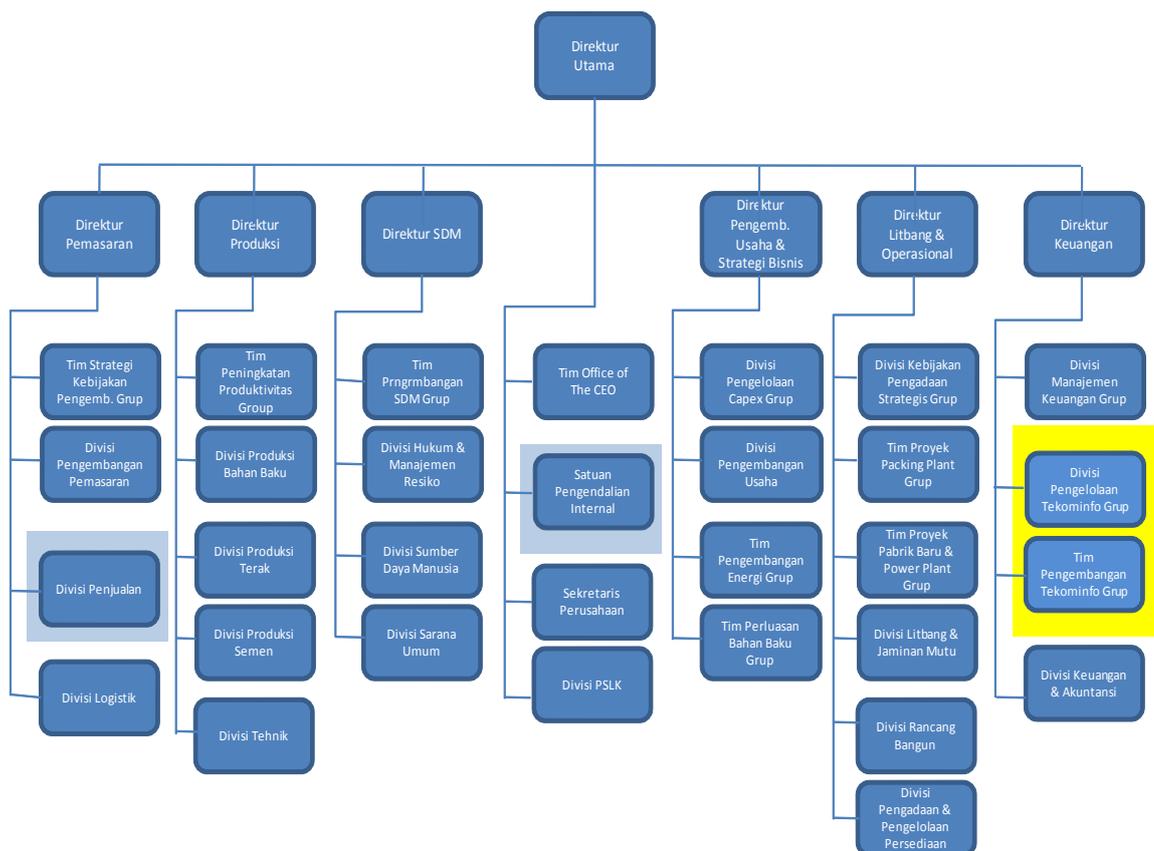
PT. Semen Gresik (Persero) Tbk. bergerak di bidang industri semen, diresmikan di Gresik pada tanggal 7 Agustus 1957 oleh Presiden RI pertama dengan kapasitas terpasang 250.000 ton semen per tahun. Pada tanggal 8 Juli 1991 Semen Gresik tercatat di Bursa Efek Jakarta dan Bursa Efek Surabaya (kini menjadi Bursa Efek Indonesia) serta menjadi BUMN pertama yang *go public* dengan menjual 40 juta lembar saham kepada masyarakat dengan komposisi awal Negara RI 73% dan masyarakat 27%. Komposisi kepemilikan mengalami beberapa kali perubahan, termasuk adanya investor asing Cemex S.A de C.V perusahaan semen global berpusat di Amerika dengan komposisi Negara RI 51,01%, Cemex 25,53% dan masyarakat 23,46% pada tanggal 30 September 1999. Saham Cemex dijual kepada Blue Valley Holdings PTE Ltd. dengan komposisi terakhir per tanggal 27 Juli 2006 Negara RI 51,01%, Blue Valley 24,90% dan masyarakat 24,09% hingga akhir Maret 2010, saat terjadi penjualan seluruh saham Blue Valley melalui *private placement* dengan komposisi kepemilikan menjadi Negara RI 51,01% dan publik 48,99% hingga saat ini.

Pada tanggal 15 September 1995, PT Semen Gresik berkonsolidasi dengan PT. Semen Padang dan PT. Semen Tonasa dengan kepemilikan saham masing-masing sebesar 99,99%. Konsolidasi selanjutnya disebut sebagai Semen Gresik Grup (SGG). SGG memiliki kapasitas terpasang kurang lebih sebesar 20,2 juta ton semen per tahun dan mampu menguasai sekitar 44% pangsa pasar semen dalam negeri dan mengekspor ke beberapa negara lain. SGG memproduksi berbagai jenis semen, yang utama *Semen Portland Tipe I* (OPC) dan memproduksi pula berbagai tipe khusus dan semen campur (*mixed cement*) untuk penggunaan terbatas dan jumlah yang lebih kecil daripada OPC. Lokasi pabrik SGG yang sangat strategis di Sumatera, Jawa, dan Sulawesi menjadi salah satu modal utama bagi SGG untuk tetap mampu memasok kebutuhan semen nasional yang didukung oleh ribuan distributor, sub distributor dan toko-toko pelanggan. Ekspor semen dilakukan pada beberapa negara lain seperti Singapura, Malaysia,

Korea, Vietnam, Taiwan, Hongkong, Kamboja, Bangladesh, Yaman, Norfolk USA, Australia, Canary Island, Mauritius, Nigeria, Mozambik, dan Madagaskar.

Selain berkonsolidasi dengan industri semen, Perseroan juga memiliki struktur usaha dan anak usaha, asosisasi maupun afiliasi yang mencakup beberapa sektor usaha lainnya, antara lain kawasan real estate industrial (PT. Kawasan Industri Gresik dengan kepemilikan 65%), suplai kantong semen (PT. Industri Kemasan Semen Gresik - 60%), bidang pertambangan (PT. United Tractors Semen Gresik - 55,0%), kontraktor mekanikal dan elektrikal, dan jasa penyewaan alat berat (PT Swadaya Graha - 25%), jasa pengangkutan dan perdagangan umum (PT. Varia Usaha - 24,95%), pabrikasi lembaran fiber semen dan panel (PT. Eternit Gresik - 17,51%) industri beton dan bahan bangunan (PT. Varia Usaha Beton - 16,66%) serta beberapa perusahaan lain di banyak bidang usaha.

3.2. Struktur Organisasi Perseroan



Gambar 3.1 Struktur Organisasi PT. Semen Gresik (Persero) Tbk.

Sumber : PT. Semen Gresik (Persero) Tbk.

Struktur organisasi Perseroan dipimpin oleh Direktur Utama dan dibantu 6 anggota direksi yang membawahi beberapa bidang pekerjaan dengan orientasi Semen Gresik Grup, terinci sebagai berikut :

1. Direktur Pemasaran
 - Tim Strategi Kebijakan Pengembangan Grup
 - Departemen Pengembangan Pemasaran
 - Departemen Penjualan
 - Departemen Distribusi dan Transportasi
2. Direktur Produksi
 - Tim Peningkatan Produktivitas Grup
 - Departemen Produksi Bahan Baku
 - Departemen Produksi Terak
 - Departemen Produksi Semen
 - Departemen Teknik
3. Direktur Sumber Daya Manusia
 - Tim Pengembangan SDM Grup
 - Departemen HMR (Hukum dan Manajemen Risiko)
 - Departemen SDM
 - Departemen Sarana Umum
4. Direktur Pengembangan Usaha dan Strategi Bisnis
 - Departemen Pengelolaan Capex Grup
 - Departemen Pengembangan Perusahaan
 - Tim Pengembangan Energi Grup
 - Tim Perluasan Bahan Baku Grup
5. Direktur Penelitian Pengembangan dan Operasional
 - Departemen Kebijakan Pengadaan Strategis Grup
 - Tim Proyek Packing Plant Grup
 - Tim Proyek Pabrik Baru dan Power Plant Grup
 - Departemen Penelitian Pengembangan dan Jaminan Mutu
 - Departemen Rancang Bangun
 - Departemen Pengadaan dan Pengelolaan Persediaan

6. Direktur Keuangan
 - Departemen Manajemen Keuangan Grup
 - Departemen Pengelolaan Tekominfo Grup
 - Tim Pengembangan Tekominfo Grup
 - Departemen Keuangan dan Akuntansi
7. Pendukung
 - Tim OOTC
 - Satuan Pengendalian Internal
 - Sekretaris Perusahaan
 - Departemen PSLK

3.3. Visi, Misi, dan Strategi Bisnis Perseroan

Dalam menjalankan usahanya, PT Semen Gresik telah menetapkan visi dan misinya secara jelas sebagai arah yang akan dituju, yaitu :

1. Visi

Menjadi perusahaan persemenan terkemuka di Asia Tenggara.

2. Misi

- a. Memproduksi, memperdagangkan semen dan produk terkait lainnya yang berorientasikan kepuasan konsumen dan teknologi ramah lingkungan.
- b. Mewujudkan manajemen perusahaan berstandar internasional dengan menjunjung tinggi etika bisnis dan semangat kebersamaan, sekaligus bertindak proaktif, efisien, dan inovatif dalam setiap karya.
- c. Memiliki keunggulan bersaing, baik dalam pasar semen domestik, regional maupun internasional.
- d. Memberdayakan dan mensinergikan unit-unit usaha strategik untuk meningkatkan nilai tambah secara berkesinambungan.
- e. Memiliki komitmen terhadap peningkatan kesejahteraan pemangku kepentingan (*stakeholders*) terutama pemegang saham, pegawai, dan masyarakat sekitar.

3. Strategi bisnis Perseroan

Proyeksi pertumbuhan ekonomi dan tingkat suku bunga yang relatif stabil beberapa tahun terakhir, diperkirakan dapat memacu iklim investasi termasuk

sektor properti yang berimbas pada meningkatnya permintaan semen domestik. Perseroan membuat target dan strategi operasional tahun 2011 untuk meraih peluang dan kinerja operasional secara optimal. Inisiatif strategi disusun dengan berpegang pada 4 fokus pengelolaan strategi, yaitu *revenue management*, *cost management*, *capacity management* dan *improving competitive advantage* dengan didukung oleh keunggulan utama Perseroan. Implementasi strategi untuk mencapai pertumbuhan yang optimal dan berkelanjutan sesuai dengan visi dan misi Perseroan adalah sebagai berikut :

a. Pertumbuhan Kapasitas

Perseroan mengembangkan kapasitas, melalui pengembangan usaha yang bersifat horisontal berupa pembangunan pabrik baru pada lahan yang ada maupun lahan yang baru diakuisisi. Upaya lainnya berupa upgrading fasilitas pabrik yang ada untuk meningkatkan utilisasi dan *yield* peralatan yang ada serta mengidentifikasi peluang strategik untuk pengembangan kapasitas secara *inorganic*.

b. Pengamanan Energi

Perseroan merencanakan secara pruden keseimbangan antara pasokan listrik dari PLN dan pembangkit listrik milik sendiri untuk menjaga kontinuitas pasokan dan pengendalian biaya operasional, antara lain membangun pembangkit listrik berbahan bakar batubara di Sulawesi untuk menyuplai kebutuhan pabrik di daerah setempat. Bertolak dari deregulasi sektor kelistrikan, Perseroan mencari model bisnis yang sesuai maupun kerjasama dengan pihak eksternal untuk memperoleh pasokan energi yang efisien dalam memenuhi kebutuhan energi pabrik-pabriknya.

c. Penguatan Citra Korporasi

Perseroan terus berkomitmen untuk kepedulian sosial dengan melakukan kegiatan operasional ramah lingkungan. Perseroan mengimplementasikan *triple bottom line* dalam penguatan citra korporasi, yaitu keseimbangan antara pertumbuhan ekonomi, sosial, dan lingkungan.

d. Pemenuhan Kebutuhan Konsumen

Perseroan berupaya mempertahankan kepuasan dan loyalitas konsumen dengan meningkatkan kualitas produk dan ketepatan pengiriman.

e. Penguatan Faktor Penunjang

Perseroan berupaya meningkatkan kualitas aset utamanya, yaitu *organization capital*, *information capital*, dan *human capital* menjadi katalis secara langsung dalam mempercepat pertumbuhan bisnis Perseroan. Pada tahun 2010, Perseroan telah melakukan migrasi ERP dan akan terus melakukan penyempurnaan sistem dan fokus pada *Strategic Information System* (SIS) serta program sumber daya manusia.

f. Pengendalian Risiko

Pimpinan Perseroan secara rutin memonitor program pengelolaan risiko dan menjamin kegiatan tersebut mampu memaksimalkan efektivitas operasional Perseroan.

Berbekal keunggulan yang dimiliki, Perseroan yakin bahwa seluruh strategi tersebut dapat diselaraskan dalam rencana kerja dan anggaran perusahaan tahunan untuk mencapai pertumbuhan yang berkelanjutan.

3.4. Penerapan *Good Corporate Governance*

Sebagai Perusahaan Terbuka (*Go Public*), Perseroan telah menerapkan Tata Kelola Perseroan *Good Corporate Governance* (GCG) sebagai wujud kepatuhan Perseroan terhadap Keputusan Menteri BUMN No. kep-117/M-MBU/2002 tentang Penerapan Praktek GCG pada BUMN sekaligus merupakan cara terbaik untuk mencapai tujuan Perseroan. Dalam mengembangkan pengelolaan dan penerapan GCG, Perseroan senantiasa memperhatikan ketentuan dalam Pedoman Umum GCG Indonesia yang dikeluarkan oleh Komite Nasional Kebijakan *Governance* serta praktek bisnis terbaik (*best practices*). Perseroan berkomitmen melaksanakan Tata Kelola Perusahaan yang Baik di seluruh tingkatan dan jenjang organisasi dengan berpedoman pada berbagai ketentuan, diantaranya dalam pelaksanaan tugas dan tanggung jawab Dewan Komisaris dan Direksi, kelengkapan dan pelaksanaan tugas komite-komite dan satuan kerja yang menjalankan fungsi pengendalian internal, penerapan fungsi kepatuhan, auditor internal dan auditor eksternal, penerapan manajemen risiko, termasuk sistem pengendalian internal, rencana strategis jangka panjang Perseroan, serta transparansi kondisi keuangan dan non keuangan Perseroan.

Untuk mengoptimalkan penerapan Tata Kelola Perusahaan yang Baik, Perseroan melakukan penguatan infrastruktur dan *soft structure* GCG, restrukturisasi internal, perbaikan fungsi dan proses pengendalian internal yang mengarah kepada praktek terbaik GCG, penyesuaian dan pembaharuan sistem dan prosedur yang diperlukan untuk mendukung pelaksanaan Tata Kelola Perusahaan yang baik dan efektif.

Dalam rangka pelaksanaan tata kelola perusahaan yang baik, Perseroan menetapkan *Key Performance Indicator (KPI)* sebagai ukuran kinerja yang harus dicapai oleh manajemen. Saat ini Perseroan mengimplementasikan pengukuran kinerja pada level holding dan *dicascade* ke *Operational Company* pada level fungsional. Untuk memastikan bahwa KPI yang ditetapkan selaras dengan pencapaian visi dan misi Perseroan, dilakukan *alignment* secara vertikal dan horizontal. Dalam upaya tercapainya sasaran strategi, Perseroan melakukan inisiatif strategi diantaranya: pembangunan pabrik baru dan pembangkit tenaga listrik, Implementasi ICTMP, implementasi HCMP, inovasi dan *continues improvement*. Pelaksanaan kebijakan manajemen kinerja ini secara keseluruhan menggunakan *Balanced Scorecard* yang meliputi pengukuran berdasarkan perspektif *financial, customer, internal business process, dan learning and growth*. Salah satu bentuk implementasinya, progres pencapaian KPI dan program optimalisasi kinerja korporasi dibahas secara rutin, dengan periode setiap triwulanan dan tahunan dalam rapat Direksi dan dilaporkan kepada Dewan Komisaris.

Sebagai implementasi penerapan tata kelola, Perseroan secara terus menerus melakukan penyempurnaan atas *Standard Operating Procedure (SOP)* pada seluruh proses bisnis yang tertuang di dalam Sistem Manajemen Semen Gresik (SMSG). Perseroan memiliki komitmen untuk menerapkan Manajemen Risiko secara berkesinambungan di seluruh proses bisnis dan pengelolaan perusahaan guna mendukung tercapainya tujuan Perseroan serta peningkatan nilai tambah bagi pemangku kepentingan. Komitmen Perseroan tersebut tercermin dalam Kebijakan Manajemen Risiko Perseroan dan Prosedur Penerapan Manajemen Risiko. Kebijakan Manajemen Risiko digunakan sebagai dasar pengelolaan risiko untuk pengambilan keputusan strategis dan operasional

Perseroan. Prosedur Penerapan Manajemen Risiko merupakan penjabaran lebih lanjut dari Kebijakan Manajemen Risiko Perseroan yang memberikan penjelasan detail proses pengelolaan risiko Perseroan. Proses pengelolaan risiko Perseroan dilakukan dengan menggunakan pola pengelolaan risiko di seluruh Unit kerja (*bussines process owner*), serta pengelolaan risiko terkait dengan isu-isu strategis dan operasional. Evaluasi dan monitoring atas penerapan manajemen risiko tersebut secara periodik dilakukan untuk memastikan kecukupan rancangan dan efektivitas pelaksanaan manajemen risiko.

Di awal tahun 2010, penilaian oleh assesor independen atas tingkat kematangan dalam penerapan manajemen risiko (*risk maturity level assessment*) menunjukkan hasil akhir 3,39 (level “*defined*”) yang menunjukkan bahwa perseroan terus berupaya untuk menyempurnakan dan mengembangkan sistem pengelolaan risiko. Diharapkan tingkat kematangan (*maturity level*) dalam penerapan manajemen risiko akan terus meningkat di masa mendatang.

3.4.1. Infrastruktur dan Pengelolaan TI Saat ini

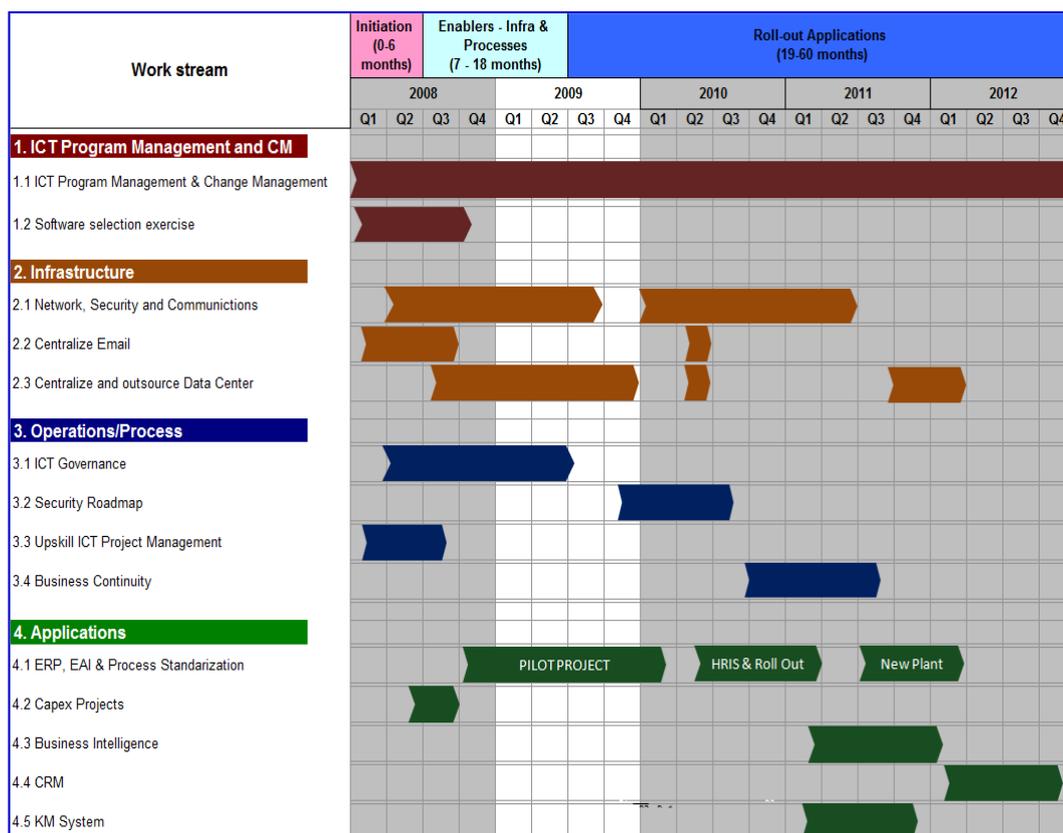
Perseroan telah memiliki satu jaringan *backbone* group sehingga seluruh aplikasi, komunikasi, *video conference* serta konten dapat diakses dari setiap *end point* cabang Perseroan. Transparansi informasi untuk seluruh perusahaan dalam grup Perseroan dapat semakin meningkat, sehingga diantara perusahaan dalam grup dapat saling berbagi strategi dan pengalaman untuk menghadapi tantangan peningkatan skala persaingan dan memanfaatkan peluang-peluang yang tercipta dari pertumbuhan kebutuhan pasar. Dengan *video conference*, komunikasi dan koordinasi karyawan antar site juga semakin efisien. Melalui interaksi yang dapat dilakukan dengan lebih intensif dan efisien dengan dukungan IT yang memadai, diharapkan dapat terjadi perubahan budaya perusahaan, sehingga seluruh jajaran Perseroan dapat lebih cepat beradaptasi dengan lingkungan dunia usaha yang berlangsung dengan dinamis.

Perseroan juga telah menerapkan sentralisasi server aplikasi, sehingga seluruh aplikasi bisnis perseroan berada di satu tempat sentral yang dapat diakses dari semua tempat.

Sejalan dengan penerapan sistem layanan bisnis (*business service*) secara tunggal dan tersentralisasi, maka pengelolaan layanan bisnis untuk seluruh *Operational Company* (OpCo) juga dilakukan secara tersentralisasi (*shared service*) sesuai dengan perencanaan. Dengan penerapan *shared service*, maka diharapkan kebijakan strategis grup dan standarisasi proses bisnis dapat dijaga dengan biaya operasional yang lebih efisien. Penerapan fungsi ICT *shared service* merupakan pilot model bagi *corporate shared service* lainnya dalam Perseroan.

3.4.2. Masterplan Sistem Informasi dan Komunikasi (ICTMP)

Sejak kuartal IV tahun 2007, sejalan dengan penyusunan strategi dan *roadmap* pengembangan bisnis, Perseroan menyusun strategi dan *masterplan* khusus untuk bidang program teknologi informasi dan komunikasi (ICT) yang dinilai memiliki peran strategis dalam pencapaian tujuan bisnis Perseroan. Penyusunan *masterplan* ICT (ICTMP) dilakukan dengan metodologi yang menjamin keselarasan (*alignment*) antara kebutuhan bisnis dan inisiatif ICT. Seluruh kebutuhan dan rencana bisnis semua *Operational Company* (OpCo) diidentifikasi, baik di tingkat operasional maupun ditingkat strategis. Kemudian, dari seluruh kebutuhan dan rencana bisnis tersebut ditentukan inisiatif-inisiatif ICT yang dapat mendukung dan bahkan mempercepat pencapaian target bisnis. Inisiatif tersebut dijadwalkan berdasarkan skala prioritas, terbagi dalam kategori infrastruktur ICT, Manajemen ICT, dan *business services*. Rangkuman inisiatif-inisiatif ICT disusun dalam dokumen ICTMP SG (*Information and Communication Technology Masterplan Semen Gresik Group*) 2008-2012. ICTMP SG dilaksanakan efektif mulai 18 Januari 2008. Untuk menjamin keberhasilan implementasi ICTMP SGG, Perseroan membentuk tim implementasi ICTMP SG yang beranggotakan dari masing-masing OpCo yang memiliki *knowledge* dan kompetensi yang tinggi dalam bidang arsitektur ICT dan *project management*. Tim Implementasi dikawal oleh *Steering Committee* ICTMP untuk menanggapi setiap permasalahan yang muncul secara efektif dan tepat waktu, serta berfungsi sebagai pengawas dalam pelaksanaan program ICTMP. ICTMP roadmap yang telah disusun Perseroan tampak pada Gambar 3.2 sebagaimana berikut ini.



Gambar 3.2. Road Map ITCMP SGG

Sumber : PT Semen Gresik (Persero) Tbk.

ICTMP Perseroan merupakan rencana berjenjang atas pengembangan teknologi informasi dan komunikasi (ICT) dalam rangka meningkatkan efektivitasnya untuk mendukung pelaksanaan proses bisnis Perseroan, dengan deskripsi proyek sebagai berikut :

1. *ICT Program Management and CM*

- Membentuk *ICT Program Management Organization* (PMO) dan *Centre of Excellence Teams* untuk implementasi *ICT roadmap*. PMO akan memprakarsai seluruh perubahan aktivitas manajemen maupun proses seleksi *software* dalam rangka *ICT roadmap*.
- PMO akan membuat pelaporan pada *Program Steering Group* dan *stakeholder* terkait untuk mengevaluasi perkembangan seluruh program yang diimplementasikan dan akan bertanggung jawab dalam penentuan *key succes factors* atas setiap proyek individual dan program-program yang dilaksanakan dalam *ICT roadmap*.

2. *Infrastructure*

- Menjamin terselenggaranya jaringan global dalam internal Perseroan maupun Grup Perseroan (SGG) untuk meningkatkan efisiensi operasional dengan mendesain dan mengimplementasikan konektivitas *Network Architecture – Global WAN (MPLS)* antara OpCo dan perusahaan holding.
- Mendesain dan mengimplementasikan arsitektur email yang tersentralisasi (*centralized email architecture*) dan single domain untuk SGG.
- Menjamin data Perseroan dikelola secara sentral (*centralizing the data center*) dan pengamannya sejalan dengan standar industri dan risiko yang minimal dalam pendistribusiannya.

3. *Operation/Process*

- Membangun struktur tata kelola TI yang baik dalam rangka menjamin sinergitas kebijakan TI maupun prosesnya sehingga mampu memperluas strategi dan tujuan organisasi.
- Membangun sistem kontrol pengaman TI secara terstruktur, formal dan sistematis.
- Mengkinikan kemampuan seluruh staf TI sehingga mampu mengelola berbagai proyek yang diimplemetasikan dalam *ICT roadmap*.
- Membuat *Business Continuity Plan (BCP)* untuk pengelolaan pusat data (*data center*) agar proses bisnis berjalan lebih efektif.

4. *Applications*

- Implementasi standar dan kebijakan akuntansi yang berlaku umum saat ini untuk menjamin adanya laporan keuangan yang lebih informatif dan mampu memenuhi kebutuhan manajemen.
- Standarisasi proses dan struktur data untuk meminimalkan kompleksitas dan risiko utama dalam implementasi *Enterprise Resource Planning (ERP) system*.
- Membuat *single system instance ERP system* diantara SGG maupun OpCo.
- Mendesain dan implementasi sarana integrasi untuk *interfacing* aplikasi Perseroan dengan *business solution systems* lainnya.
- Implementasi proyek akuntansi dan proyek manajemen untuk menyesuaikan dengan *ERP software* yang diseleksi.

- Implementasi *Business Intelligence* (BI) untuk mendukung kinerja manajemen, analisis pemasaran dan penjualan, serta analisis pabrikasi.
- Implementasi *Customer Relationship Management* (CRM) untuk mendukung divisi pemasaran dan penjualan dan menyelaraskan kemampuan divisi pemasaran dan penjualan dengan kebutuhan bisnis yang akan datang.
- Implementasi *Knowledge Management* (KM) *system* yang mampu menyediakan alat manajemen, alat kolaborasi dan sistem pembelajaran manajemen.

3.4.3. Sistem aplikasi yang dikelola TI

Layanan bisnis yang telah diimplementasikan dalam program ICTMP sampai saat ini diantaranya adalah sebagai berikut :

1. SAP ERP

Sistem SAP (*Systems, Applications, and Products*) ERP memungkinkan Perseroan dapat mengelola seluruh data operasional secara terintegrasi untuk diolah menjadi output yang aplikatif bagi pengambilan keputusan untuk setiap unit operasional. Melalui Implementasi *Single System ERP – SAP*, Perseroan berhasil menerapkan standarisasi *business process internal* di antara Semen Gresik Grup (Semen Gresik, Semen Padang, Semen Tonasa). Dengan proses bisnis yang telah distandarkan, maka konsolidasi laporan keuangan dan operasional lainnya menjadi sangat mudah dan dapat disajikan dengan cepat. Dengan penerapan single system ERP, seluruh karyawan dalam grup Perseroan memiliki terminologi dan bahasa yang sama, seperti kode material, kode akun, dan menu aplikasi ERP (T-code). Dengan kondisi kesamaan tersebut, *knowledge sharing* diantara seluruh karyawan perseroan dapat berlangsung dengan maksimal.

2. *Executive Information System (EIS)*.

Modul aplikasi EIS memungkinkan seluruh pejabat berwenang (dengan otorisasi khusus) di Perseroan memonitor proses dan menganalisis bisnis perusahaan. Informasi yang disajikan berbentuk grafis, dengan sumber data berasal dari ERP maupun data eksternal. Selanjutnya data tersebut diolah

menjadi informasi yang bersifat analitikal, sehingga akan banyak membantu dalam proses pengambilan keputusan. Modul EIS dikenal sebagai “*Business Intelligence*” atau “*Management Dashboard*” yaitu suatu sistem informasi yang ditujukan untuk kalangan *middle top management* dalam perusahaan.

3. *Supplier Portal*

Melalui modul aplikasi ini, seluruh pemasok kebutuhan Perseroan dapat mengajukan penawaran produknya dengan lebih cepat sesuai kualifikasi yang telah ditetapkan Perseroan. Dengan demikian proses pemasokan barang dan jasa kepada Perseroan dapat berlangsung secara transparan, adil, dan akuntabel.

4. *Customer Portal*

Modul aplikasi ini memungkinkan pelanggan produk semen Perseroan mengajukan permintaan pengiriman sesuai kebutuhannya setiap saat. Dengan demikian Perseroan dapat menyesuaikan skedul pengiriman dari lokasi gudang persediaan yang terdekat dengan lebih efisien, cepat, dan akurat.

5. *Online Banking System*

Modul aplikasi ini memfasilitasi seluruh transaksi Perseroan dengan para vendor maupun pelanggan dapat dilaksanakan dengan lebih cepat dan tepat dengan tetap menjamin keakuratan transaksi karena dilakukan secara terintegrasi melalui sistem perbankan dan dilakukan dengan pihak bank yang telah terikat dalam perjanjian kerjasama.

3.5. Pengawasan dan Pengendalian Internal

3.5.1. Sistem Manajemen Perseroan

Pengawasan dan pengendalian internal Perseroan dilakukan secara komprehensif dan terintegrasi dalam Sistem Manajemen Semen Gresik (SMSG) yang diimplementasikan oleh Perseroan untuk menjamin bahwa seluruh aktivitas Perseroan dijalankan sesuai prinsip GCG yaitu keterbukaan (*transparency*), akuntabilitas (*accountability*), tanggung jawab (*responsibility*), independensi (*independency*), serta kewajaran dan kesetaraan (*fairness*). SMSG merupakan sistem informasi yang berisi dokumen tentang kebijakan, prosedur, instruksi kerja dan catatan dengan penjelasan sebagai berikut :

- Kebijakan, yaitu komitmen Perseroan untuk mencapai visi, misi, sasaran yang ditetapkan, hubungan antar proses, tanggung jawab dan wewenang dalam menjalankan kegiatan Perseroan.
- Prosedur, yaitu rangkaian proses kegiatan lintas fungsi untuk menjalankan dan memantau proses bisnis dalam perseroan.
- Instruksi, yaitu rincian langkah-langkah untuk melaksanakan suatu pekerjaan atau kegiatan pada unit-unit kerja.
- Catatan, yaitu dokumen bukti pelaksanaan pekerjaan dan dokumen penunjang penerapan SMSG.

Untuk memastikan implementasi SMSG berjalan secara efektif dan efisien, maka Perseroan membentuk Tim Peningkatan dan Penyempurnaan Mutu SMSG melalui Surat Keputusan Direksi yang diperbarui setiap tahun. Peningkatan dan penyempurnaan sistem manajemen yang telah dilakukan antara lain optimalisasi integrasi *Risk Management* ke dalam SMSG dan pengembangan implementasi IcoFR, yaitu proses pengendalian internal dalam pengelolaan perusahaan untuk menjamin keandalan pelaporan keuangan.

3.5.2. Internal Audit

Internal Audit merupakan pengawas internal Perseroan yang bertugas melakukan evaluasi efektivitas pengendalian internal secara obyektif dan memberikan konsultasi atas pelaksanaan kegiatan usaha Perseroan dan anak-anak perusahaan. Pelaksanaan tugas Internal Audit mengacu pada pedoman audit Internal Audit (*Audit Charter*) yang telah disahkan oleh Direktur Utama dan disetujui oleh Komisaris Utama pada tanggal 27 Desember 2010 yang secara umum memuat tentang visi, misi, struktur organisasi, wewenang, tugas dan tanggung jawab, persyaratan dan profesionalisme auditor, tata cara pelaksanaan audit, serta kode etik audit internal.

Aktivitas Internal Audit memfokuskan pada pengendalian risiko transaksi saat ini dan mendatang dengan menitikberatkan pada penanganan hambatan dan penyimpangan, serta memberi masukan kepada manajemen yang bersifat konstruktif dan konsultatif untuk alternatif pemecahan dan rekomendasi. Ruang

lingkup audit mencakup audit operasional, audit Sistem Manajemen dan Audit Khusus. Seluruh tindak lanjut temuan dan rekomendasi yang telah dilakukan, akan dimonitor secara periodik bersamaan dengan audit periode berikutnya.

3.6. Metodologi Penelitian

Penulis menggunakan metodologi penelitian kualitatif, yaitu melakukan penelitian dan pengukuran tata kelola teknologi informasi dan komunikasi studi kasus pada Perseroan dengan menggunakan kerangka kerja *process Maturity Assesment Tools* – COBIT 4.1 dengan tahapan sebagai berikut :

a. *Determine the scope of the assesmnet*

– *Mapping The Business Goals*

Melakukan pemetaan tujuan dan sasaran Perseroan ke dalam *Business Goals* yang sesuai dengan 4 perspektif *Balanced Scorecard* COBIT, yaitu: Financial, Customer, Internal, dan Learning. Selain itu untuk memperoleh gambaran yang lebih nyata, maka *Balanced Scorecard Business Goals* perseroan dilakukan juga terhadap tujuan TI sebagaimana teori audit TI.

– *Scoring The Business Goals*

Melakukan scoring hasil pemetaan pada setiap *business goals* ke dalam skala relatif dari angka 1 (kurang penting) sampai dengan angka 10 (paling penting) bagi Perseroan dengan menggunakan modul *Business Goals Questionnaire* terhadap *business goals* Perseroan.

– *Reviewing The Scoring of IT Goals*

Hasil scoring *Business Goals* IT selanjutnya diterjemahkan ke dalam 28 tujuan TI COBIT yang dilakukan secara otomatis oleh sistem dengan skala relatif angka 1 (kurang penting) sampai dengan angka 10 (paling penting).

b. *Scope Review*

Melakukan konsolidasi *IT Process Importance*, *Target Process Maturity (short term - long term)* dan *Assesment Scope* sehingga diperoleh matrik gambaran umum yang harus dilakukan penilaian.

– Hasil scoring *business goals* dan IT goals yang diperoleh, selanjutnya digunakan untuk menghitung skor tiap proses TI dengan menggunakan modul *IT Process Importance Overview* yang terdiri dari 4 bagian :

- Penjabaran dari 4 domain utama TI COBIT berupa 34 proses TI.
- Penyajian skor masing-masing domain dan process COBIT yang akan diisi secara otomatis melalui sistem, skor akan menentukan lingkup penilaian yaitu apabila nilai proses TI diperoleh kurang dari 6 maka tidak disarankan untuk dilakukan penilaian atas proses tersebut.
- Lingkup penilaian yang disarankan dan disetujui untuk dilakukan penilaian.
- Target *maturity level* yang ingin dicapai oleh Perseroan (*short term – long term*).

c. *Perform the Assesment*

- Melakukan penilaian *maturity level* secara rinci atas masing-masing proses TI yang masuk ke dalam lingkup penilaian.
- Hasil penilaian masing-masing proses TI akan menjadi *maturity level* saat ini yang akan dibandingkan dengan target *maturity level* yang ditetapkan sebelumnya, sehingga diperoleh data kesenjangan (*gap*) *maturity level* sebagaimana disajikan dalam modul *assesment overview* yang terdiri dari 5 bagian, yaitu :
 - Daftar proses TI
 - *IT Process Importance*
 - *Assesment details*
 - Proses *maturity per IT process* (*target maturity, assesment, gap*)
 - *Weighted gaps* antara target *maturity level* dengan *maturity level* aktual yang telah dihitung (*short term-long term*)
- Untuk melakukan penilaian atas masing-masing, COBIT menggunakan metode berupa kuesioner kepada pejabat yang berwenang pada Perseroan yang berisi pernyataan atas pengelolaan TI yang dikelompokkan sesuai dengan *maturity level* dengan rentang jawaban *Not at all, A Little, To some Degree, Completely*.
- Masing-masing pernyataan dinilai bobot dan kontribusinya pada *maturity level*.
- Dari hasil penilaian, selanjutnya dilakukan penelaahan terhadap masing-masing proses TI (34 proses).

d. *Review the Assessment Results*

Berdasarkan hasil penilaian atas masing-masing proses TI, maka pada *assesment overview* dapat dilihat kesenjangan yang timbul baik jangka pendek maupun panjang antar target dan *current maturity level*. Analisis kesenjangan *maturity level* jangka pendek dan jangka panjang dilakukan pada proses TI yang levelnya di bawah target.

BAB 4

ANALISIS DAN PEMBAHASAN

4.1. *Determine the Scope of The Assesment*

Proses *maturity assesment tools* COBIT 4.1 diawali dengan melakukan identifikasi tujuan bisnis Perseroan (*Business Goals*) yang diterjemahkan melalui 6 strategi bisnis Perseroan. Identifikasi ini dilakukan dalam rangka pemetaan tujuan bisnis Perseroan ke dalam *Business Balanced Scorecard* (BSC). Dari pemetaan ini akan diperoleh nilai pada *Business Goals Questionnaire* yang dilakukan berdasarkan 4 perspektif BSC dalam COBIT 4.1 yaitu *financial*, *customer*, *internal business process*, dan *learning and growth* yang terinci dalam 17 aspek. Masing-masing aspek diberikan penilaian dengan rentang paling rendah mulai dari 1 sampai dengan nilai tertinggi 10. Nilai 1 menunjukkan bahwa perspektif dalam BSC tidak terlalu penting (*not applicable*) dalam tujuan bisnis Perseroan, sementara nilai 10 menunjukkan bahwa perspektif BSC merupakan hal yang penting (*applicable*) dalam tujuan bisnis Perseroan.

Untuk memperoleh gambaran yang lebih nyata, maka peneliti melakukan pemetaan tujuan bisnis Perseroan sekaligus dengan BSC *IT Goals* dari sisi teori audit TI, karena peneliti berpendapat bahwa metode *maturity assesment tools* COBIT 4.1 tidak terlepas dengan evaluasi terhadap tata kelola TI Perseroan untuk mendukung pencapaian tujuan bisnis Perseroan. Selain itu bertujuan agar penilaian *business goals* dapat lebih mudah dilakukan apabila BSC disandingkan pula dengan *IT Balanced Scorecard*.

Dari hasil pemetaan business goals Perseroan, tahap selanjutnya adalah menempatkan *Business Goals Questionnaire* ke dalam *IT Goals Questionnaire*. Dari proses penempatan tersebut, akan diperoleh nilai *IT Goals* secara otomatis melalui sistem *maturity assesment tools* COBIT 4.1 dengan rentang nilai dari 1 sampai dengan 10.

Adapun alur penelitian yang akan dilakukan dalam proses *determine the scope of the assesment* secara ringkas adalah sebagai berikut :

Tahap 1 : Pemetaan strategi bisnis ke dalam *Business Balanced Scorecard* COBIT 4.1

Tahap 2 : Penilaian *Business Goals Questionnaire*

Tahap 3 : Penilaian *IT Goals Questionnaire*

4.1.1. Pemetaan Strategi Bisnis ke dalam *Business Balanced Scorecard* COBIT 4.1

Tahap pertama dari proses *Determine The Scope of The Assesment* adalah menjabarkan strategi bisnis Perseroan ke dalam *Business Balance Scorecard* COBIT 4.1. Sesuai dengan laporan tahunan Perseroan posisi terakhir (tahun 2010), terdapat 4 misi bisnis Perseroan yaitu :

- a. Memproduksi, memperdagangkan semen dan produk terkait lainnya yang berorientasikan kepuasan konsumen dan teknologi ramah lingkungan.
- b. Mewujudkan manajemen perusahaan berstandar internasional dengan menjunjung tinggi etika bisnis dan semangat kebersamaan, sekaligus bertindak proaktif, efisien, dan inovatif dalam setiap karya.
- c. Memiliki keunggulan bersaing, baik dalam pasar semen domestik, regional maupun internasional.
- d. Memberdayakan dan mensinergikan unit-unit usaha strategik untuk meningkatkan nilai tambah secara berkesinambungan.
- e. Memiliki komitmen terhadap peningkatan kesejahteraan pemangku kepentingan (*stakeholders*) terutama pemegang saham, pegawai, dan masyarakat sekitar.

Misi/tujuan bisnis tersebut akan dicapai Perseroan melalui penyusunan strategi bisnis yang berpegang pada 4 fokus utama yaitu :

- a. *Revenue management*
- b. *Cost management*
- c. *Capacity management*
- d. *Improving competitive advantage*

Selanjutnya strategi-strategi tersebut diimplementasikan dengan tetap mengedepankan program sinergi antar tiga perusahaan anggota grup (SGG) dengan pokok pelaksanaan program kerja sebagai berikut :

- a. Pertumbuhan kapasitas
- b. Pengamanan energi

- c. Penguatan citra korporasi
- d. Pemenuhan kebutuhan konsumen
- e. Penguatan faktor penunjang
- f. Pengendalian risiko utama

Dalam rangka perumusan *business goals* dengan pendekatan COBIT 4.1, maka dilakukan pemetaan pada setiap strategi bisnis Perseroan sebagaimana hasil pemetaan pada Tabel 4.1.

Tabel 4.1. *Business Goals Mapping*

Sasaran Strategis dan Program Kerja	COBIT Business Goals	
	Perspektif	Business Goals
1 Pertumbuhan kapasitas <ul style="list-style-type: none"> - Mengembangkan kapasitas usaha melalui pembangunan pabrik baru pada lahan yang ada maupun lahan yang baru diakuisisi untuk memenuhi pertumbuhan - <i>Upgrading</i> fasilitas pabrik yang ada untuk meningkatkan utilisasi dan <i>yield</i> peralatan yang ada. - Mengidentifikasi peluang strategik untuk pengembangan kapasitas secara <i>inorganic</i> yang akan mendukung pencapaian kinerja yang optimal. 	<i>Financial</i>	<ul style="list-style-type: none"> - <i>Provide a good return on investment of IT-enabled business investments.</i> - <i>Manage IT-related business risk.</i>
	<i>Customer</i>	<ul style="list-style-type: none"> - <i>Improve customer orientation and service.</i> - <i>Offer competitive products and services.</i> - <i>Establish service continuity and availability.</i> - <i>Create agility in responding to changing business requirement (time to market).</i> - <i>Achieve cost optimisation of service delivery.</i> - <i>Obtain reliable and useful information for strategic decision making.</i>
	<i>Internal</i>	<ul style="list-style-type: none"> - <i>Improve and maintain business process functionality.</i> - <i>Lower process costs.</i> - <i>Manage business change.</i> - <i>Improve and maintain operational and staff productivity.</i>

Tabel 4.1. *Business Goals Mapping* (sambungan)

Sasaran Strategis dan Program Kerja	COBIT Business Goals	
	Perspektif	Business Goals
1 Pertumbuhan kapasitas (lanjutan)	<i>Learning and growth</i>	<ul style="list-style-type: none"> - <i>Manage product and business innovation.</i> - <i>Acquire and maintain skilled and motivated people.</i>
2 Pengamanan energi <ul style="list-style-type: none"> - Perencanaan secara prudent untuk menjaga keseimbangan pasokan listrik dari PLN dan pembangkit listrik milik sendiri. - Mendorong pengendalian yang lebih baik pada kontinuitas pasokan dan biaya operasional. - Mengupayakan model bisnis yang dapat menggunakan pasokan energi yang efisien. - Intensif menyusun strategi kerjasama dengan pihak eksternal dalam rangka memenuhi kebutuhan energi untuk operasional pabrik-pabrik. 	<i>Financial</i>	<ul style="list-style-type: none"> - <i>Provide a good return on investment of IT-enabled business investments.</i> - <i>Manage IT-related business risk.</i>
	<i>Customer</i>	<ul style="list-style-type: none"> - <i>Improve customer orientation and service.</i> - <i>Offer competitive products and services.</i> - <i>Establish service continuity and availability.</i> - <i>Create agility in responding to changing business requirement (time to market).</i> - <i>Achieve cost optimisation of service delivery.</i> - <i>Obtain reliable and useful information for strategic decision making.</i>
	<i>Internal</i>	<ul style="list-style-type: none"> - <i>Improve and maintain business process functionality.</i> - <i>Lower process costs.</i> - <i>Manage business change.</i> - <i>Improve and maintain operational and staff productivity.</i>
	<i>Learning and growth</i>	<ul style="list-style-type: none"> - <i>Manage product and business innovation.</i> - <i>Acquire and maintain skilled and motivated people.</i>

Tabel 4.1. *Business Goals Mapping* (sambungan)

Sasaran Strategis dan Program Kerja	COBIT Business Goals	
	Perspektif	Business Goals
3 Penguatan citra korporasi - Investasi dana secara konsisten untuk menciptakan kegiatan operasional yang ramah lingkungan. - Mempromosikan pengembangan masyarakat di sekitarnya sehingga memiliki makna hubungan dengan lingkungan. - Mengimplementasikan konsep <i>triple bottom line</i> dalam rencana ekspansi bisnis, yaitu menjaga keseimbangan antara pertumbuhan ekonomi, sosial dan lingkungan, dalam rangka penguatan citra korporasi.	<i>Financial</i>	- <i>Manage IT-related business risk.</i> - <i>Improve corporate governance and</i>
	<i>Customer</i>	- <i>Improve customer orientation and service.</i> - <i>Offer competitive products and services.</i>
	<i>Internal</i>	- <i>Improve and maintain business process functionality.</i> - <i>Provide compliance with external laws, regulations and contracts.</i> - <i>Provide compliance with internal policies.</i> - <i>Manage business change.</i>
	<i>Learning and growth</i>	- <i>Manage product and business innovation.</i>
4 Pemenuhan kebutuhan - Fleksibel dan responsif dalam melakukan penyesuaian model bisnis untuk memenuhi permintaan konsumen - Menjaga kualitas produk. - Menjaga ketepatan pengiriman produk ke konsumen. - Mempertahankan kepuasan dan loyalitas konsumen melalui pemahaman kebutuhan konsumen atas produk Perseroan.	<i>Financial</i>	- <i>Provide a good return on investment of IT-enabled business investments.</i> - <i>Manage IT-related business risk.</i>
	<i>Customer</i>	- <i>Improve customer orientation and service.</i> - <i>Offer competitive products and services.</i> - <i>Establish service continuity and availability.</i> - <i>Create agility in responding to changing business requirement (time to market).</i> - <i>Achieve cost optimisation of service delivery.</i>

Tabel 4.1. *Business Goals Mapping* (sambungan)

Sasaran Strategis dan Program Kerja	COBIT Business Goals	
	Perspektif	Business Goals
4 Pemenuhan kebutuhan (lanjutan)	<i>Internal</i>	<ul style="list-style-type: none"> - <i>Improve and maintain business process functionality.</i> - <i>Lower process costs.</i> - <i>Manage business change.</i> - <i>Improve and maintain operational and staff productivity.</i>
	<i>Learning and growth</i>	<ul style="list-style-type: none"> - <i>Manage product and business innovation.</i> - <i>Acquire and maintain skilled and motivated people.</i>
5 Penguatan faktor penunjang <ul style="list-style-type: none"> - Meningkatkan kualitas aset utama berupa <i>organization capital, information capital, dan human capital</i> untuk menjadi katalis secara langsung dalam mempercepat pertumbuhan bisnis Perseroan. - Implementasi program <i>Information, Communication and Technology (ICT)</i>. - Menyempurnakan sistem dan fokus pada <i>Strategic Information System (SIS)</i> serta program SDM. 	<i>Financial</i>	<ul style="list-style-type: none"> - <i>Provide a good return on investment of IT-enabled business investments.</i> - <i>Improve corporate governance and transparency.</i> - <i>Manage IT-related business risk.</i>
	<i>Customer</i>	<ul style="list-style-type: none"> - <i>Improve customer orientation and service.</i> - <i>Offer competitive products and services.</i> - <i>Establish service continuity and availability.</i> - <i>Create agility in responding to changing business requirement (time to market).</i> - <i>Achieve cost optimisation of service delivery.</i> - <i>Obtain reliable, useful information for strategic decision making.</i>
	<i>Internal</i>	<ul style="list-style-type: none"> - <i>Improve and maintain business process functionality.</i> - <i>Lower process costs.</i> - <i>Manage business change.</i> - <i>Provide compliance with external laws, regulations and contracts.</i> - <i>Provide compliance with internal policies.</i>

Tabel 4.1. *Business Goals Mapping* (sambungan)

Sasaran Strategis dan Program Kerja	COBIT Business Goals	
	Perspektif	Business Goals
5 Penguatan faktor penunjang (lanjutan)		- <i>Improve and maintain operational and staff productivity.</i>
	<i>Learning and growth</i>	- <i>Manage product and business innovation.</i> - <i>Acquire and maintain skilled and motivated people.</i>
6 Pengendalian risiko utama - Menetapkan prosedur penerapan manajemen risiko untuk memenuhi prinsip tata kelola perusahaan baik (GCG). - Memonitor program pengelolaan risiko secara rutin agar efektivitas operasional Perseroan dapat lebih maksimal. - Mengelola dan memitigasi risiko dari rencana strategi yang agresif namun pruden.	<i>Financial</i>	- <i>Provide good return on investment of IT-enabled business invest.</i> - <i>Manage IT-related business risk.</i> - <i>Improve corporate governance and transparency.</i>
	<i>Customer</i>	- <i>Improve customer orientation and service.</i> - <i>Offer competitive products and services.</i> - <i>Establish service continuity and availability.</i> - <i>Create agility in responding to changing business requirement (time to market).</i> - <i>Achieve cost optimisation of service delivery.</i> - <i>Obtain reliable, useful information for strategic decision making.</i>
	<i>Internal</i>	- <i>Improve and maintain business process functionality.</i> - <i>Lower process costs.</i> - <i>Provide compliance with external laws, regulations and contracts.</i> - <i>Provide compliance with internal policies.</i> - <i>Manage business change.</i> - <i>Improve and maintain operational and staff productivity.</i>
	<i>Learning and growth</i>	- <i>Manage product and business innovation.</i> - <i>Acquire and maintain skilled and motivated people.</i>

Hasil pemetaan terhadap strategi bisnis Perseroan di atas menunjukkan bahwa tujuan dan sasaran strategi bisnis mencakup secara merata hampir pada seluruh perspektif *business goals* COBIT 4.1 yaitu perspektif *financial*, *customer*, *internal*, dan *learning and growth*.

Mengingat bahwa Perseroan merupakan perusahaan komersial dengan *profit oriented*, maka fokus utama yang mendasari perumusan tujuan dan strategi bisnis adalah kepuasan pelanggan secara optimal dengan memproduksi semen secara maksimal dan bermutu tinggi dengan tetap mengedepankan proses bisnis yang efisien dan efektif melalui teknologi informasi dan komunikasi yang tepat guna. Teknologi informasi dan komunikasi menjembatani seluruh kebutuhan bisnis dengan sumber daya yang dimiliki Perseroan dengan tetap berupaya menjamin adanya kepatuhan terhadap sistem dan prosedur yang diatur secara umum maupun internal Perseroan serta sistem pengamanan TI yang memadai.

Proses bisnis dikelola dengan *cost management* secara efisien untuk memproduksi output yang optimal dan berkualitas melalui *capacity management* secara cermat dengan hasil akhir yang maksimal, dimana hasil ini pula yang akan dikelola secara efektif dalam *revenue management* untuk *upgrading* proses bisnis yang lebih tepat guna (*improving competitive advantage*). Secara umum, seluruh upaya pencapaian tujuan bisnis melalui berbagai strategi yang dijalankan Perseroan sebagai salah satu BUMN tetap berlandaskan pada penerapan tata kelola Perseroan yang baik dan memadai, baik dari tata kelola proses bisnis maupun tata kelola TI sebagai pendukung utama.

4.1.2. Penilaian Tujuan Bisnis Perseroan (*Scoring The Business Goals*)

Dari hasil pemetaan tersebut, selanjutnya dilakukan proses penilaian pada setiap *business goals* dimaksud dengan skor mulai dari 1 (kurang penting) sampai dengan 10 (sangat penting). Penulis dalam memberikan skor *business goals* memfokuskan kepada cerminan tujuan TI Perseroan yang diterapkan melalui kinerja fungsi teknologi dan informasi apakah benar-benar seiring dan mampu mencapai tujuan Perseroan dalam 4 perspektif BSC.

Penulis memberikan skor dengan rentang antara 7 sampai dengan 10 yang menunjukkan bahwa seluruh perspektif *business goals* telah mencapai level cukup

penting hingga sangat penting. Skor nilai dimulai dari 7 karena seluruh tujuan dan strategi bisnis telah mencerminkan 4 perspektif *Business Balanced Scorecard* COBIT 4.1. Namun skor dapat bervariasi karena penulis dalam melakukan penilaian, juga melakukan pengamatan dan penggalian informasi mengenai sejauh mana pelaksanaan strategi Perseroan dan dampaknya hingga saat ini.

Nilai tertinggi 10 (paling penting) diberikan pada perspektif *financial* dengan *business goals provide a good return on investment of IT-enabled business investment*. Hal ini didasarkan pada tingginya investasi Perseroan pada pengembangan teknologi informasi dan komunikasi dalam setiap proses bisnisnya dengan berbagai layanan bisnis yang tersedia mulai dari penerapan SAP ERP system maupun implementasi *Business Intelligence* dalam bentuk *Executive Information System*, maupun koneksitas dengan supplier dan customer secara *online* dan *real time* melalui *supplier portal* dan *customer portal*.

Pengembangan TI yang dilakukan Perseroan mampu meningkatkan kinerja seluruh fungsi operasional Perseroan antara lain bagian produksi, penjualan, maupun bagian akuntansi dan keuangan, maupun pihak ketiga (supplier dan distributor). Sebagai contoh, bagian penjualan dapat melakukan pemantauan terhadap pesanan barang, kecukupan plafon, maupun jatuh tempo pembayaran pada masing-masing distributor setiap saat (*real time*), dimana ketentuannya bahwa setiap distributor wajib menyetor sejumlah uang tertentu dalam bentuk Bank Garansi sebagai jaminan atas pesanan barang dan apabila terdapat tagihan belum terbayar sesuai jatuh tempo, maka pesanan tidak dapat dipenuhi/dipenuhi sebagian disesuaikan dengan kecukupan jaminan. Bagian penjualan dapat pula setiap saat memantau jumlah persediaan semen di masing-masing gudang distributor, sehingga dapat berkoordinasi dengan bagian pengiriman barang.

Nilai terendah 7 diberikan pada perspektif *customer* dengan *business goals offer competitive products and services*. Hal ini berdasarkan relatif kurang beragamnya variasi produk semen dibanding produsen lainnya yang kini mampu menciptakan inovasi produk setara semen dengan kualitas lebih handal, serta harga rata-rata Semen Gresik yang relatif kurang bersaing dengan harga kompetitor lain. Hal ini dimungkinkan terjadi karena secara kuantitas, antara

supply (persediaan) dan *demand* (permintaan) semen tidak seimbang, dimana jumlah permintaan masih jauh lebih tinggi sehingga persediaan dengan tingkat harga bervariasi dari industri, sehingga tingkat harga berapapun relatif masih mampu diserap oleh pasar atau konsumen.

Sementara nilai 8 dan 9 diberikan pada kondisi dimana tujuan Perseroan telah sejalan dengan strategi bisnis yang diimplementasikan dengan perkembangan proses hasil yang relatif sudah baik dan memadai. *Business Goals* scoring Perseroan secara lengkap ditampilkan dalam Tabel 4.2.

Tabel 4.2. *Business Goals Score*

<i>Perspektif</i>	<i>Business Goals</i>		Score	
<i>Financial</i>	1	<i>Provide a good return on investment of IT-enabled business investments.</i>	10	9
	2	<i>Manage IT-related business risk.</i>	9	
	3	<i>Improve corporate governance and transparency.</i>	8	
<i>Customer</i>	4	<i>Improve customer orientation and service.</i>	8	8
	5	<i>Offer competitive products and services.</i>	7	
	6	<i>Establish service continuity and availability.</i>	8	
	7	<i>Create agility in responding to changing business requirements (time to market).</i>	8	
	8	<i>Achieve cost optimisation of service delivery.</i>	8	
	9	<i>Obtain reliable and useful information for strategic decision making.</i>	8	
<i>Internal</i>	10	<i>Improve and maintain business process functionality.</i>	9	8
	11	<i>Lower process costs.</i>	8	
	12	<i>Provide compliance with external laws, regulations and contracts.</i>	8	
	13	<i>Provide compliance with internal policies.</i>	8	
	14	<i>Manage business change.</i>	8	
	15	<i>Improve and maintain operational and staff productivity.</i>	8	
<i>Learning</i>	16	<i>Manage product and business innovation.</i>	8	9
	17	<i>Acquire and maintain skilled and motivated people.</i>	9	
			8.2	Avg

4.1.3. Tinjauan Tujuan TI Perseroan (*Reviewing The Scoring of IT Goals*)

Setelah dilakukan penilaian terhadap *business goals*, maka tahap selanjutnya adalah menempatkan *business goals* kepada tujuan TI (*IT Goals*) dengan menggunakan *process maturity assesment tools* – COBIT 4.1. Pengaruh

dari *business goals* terhadap *IT Goals* Perseroan dapat dilihat dengan menggunakan *IT Goals Questionnaire*. Dari hasil penilaian *business goals* dalam tabel 4.2 di atas, oleh sistem dilakukan proses sedemikian rupa sehingga skor *IT Goals* dapat langsung terisi secara otomatis dengan rentang antara 1 (kurang penting) sampai dengan 10 (sangat penting). *IT Goals scoring* secara lengkap disajikan dalam Tabel 4.3.

Tabel 4.3. *The IT Goals Score*

<i>Each of the following IT goals is scored on a scale from 1 (not important) to 10 (most important) based on the Business goals scoring. The IT Goals scores are automatically calculated based on the Business Goals scores and filled in by the system.</i>		Score
1	<i>Respond to business requirements in alignment with the business strategy.</i>	8
2	<i>Respond to business requirements in line with board direction.</i>	8
3	<i>Ensure satisfaction of end users with service offerings and service levels.</i>	8
4	<i>Optimise use of information.</i>	8
5	<i>Create IT agility.</i>	8
6	<i>Define how business functional and control requirements are translated in effective</i>	9
7	<i>Acquire and maintain integrated and standardised application systems.</i>	8
8	<i>Acquire and maintain an integrated and standardised IT infrastructure.</i>	8
9	<i>Acquire and maintain IT skills that respond to the IT strategy.</i>	9
10	<i>Ensure mutual satisfaction of third-party relationships.</i>	8
11	<i>Seamlessly integrate applications and technology solutions into business processes.</i>	8
12	<i>Ensure transparency and understanding of IT cost, benefits, strategy, policies and</i>	8
13	<i>Ensure proper use and performance of the applications and technology solutions.</i>	8
14	<i>Account for and protect all IT assets.</i>	9
15	<i>Optimise the IT infrastructure, resources and capabilities.</i>	8
16	<i>Reduce solution and service delivery defects and rework.</i>	8
17	<i>Protect the achievement of IT objectives.</i>	9
18	<i>Establish clarity of business impact of risks to IT objectives and resources.</i>	9
19	<i>Ensure critical and confidential information is withheld from those who should not</i>	9
20	<i>Ensure automated business transactions and information exchanges can be</i>	8
21	<i>Ensure IT services and the IT infrastructure can properly resist and recover from</i>	9
22	<i>Ensure minimum business impact in the event of an IT service disruption or</i>	8
23	<i>Make sure that IT services are available as required.</i>	8
24	<i>Improve IT's cost-efficiency and its contribution to business profitability.</i>	8
25	<i>Deliver projects on time and on budget, meeting quality standards.</i>	8
26	<i>Maintain the integrity of information and processing infrastructure.</i>	8
27	<i>Ensure IT compliance with laws, regulations and contracts.</i>	8
28	<i>Ensure that IT demonstrates cost-efficient service quality, continuous improvement</i>	8
Average		8.2

4.2. Tinjauan Ruang Lingkup Penilaian (*Scope Review*)

Setelah penilaian tujuan bisnis ke dalam tujuan TI menurut COBIT 4.1, proses selanjutnya adalah melakukan konsolidasi seluruh rangkaian aspek penilaian berupa *IT Process Importance*, *Target Process Maturity*, dan *Assesment Scope* untuk memperoleh gambaran ruang lingkup penilaian. Di dalam *Target Process Maturity* perlu memasukkan target maturity jangka pendek dan jangka panjang serta ruang lingkup untuk evaluasi penilaian.

Skor dari *business goals* dan *IT goals* pada tahap sebelumnya digunakan untuk memperoleh skor tiap proses TI dengan modul *IT Process Importance overview* yang terdiri dari 4 bagian, yaitu :

1. Daftar proses TI terdiri dari 34 proses, penjabaran dari 4 domain proses utama.
2. Skor masing-masing domain dan proses COBIT akan disajikan secara otomatis oleh sistem berupa *IT Process Importance*. Skor ini menentukan ruang lingkup penilaian yang disarankan untuk dilakukan (*assesment scope*), yaitu penilaian dilakukan terhadap skor proses TI dari 6 sampai dengan 10.
3. Ruang lingkup penilaian yang disarankan dan disetujui dilakukan penilaian.
4. Target *maturity level* yang ingin dicapai jangka pendek dan jangka panjang.

Tabel 4.4. *IT Process Importance Overview – Part 1*

<i>COBIT Process</i>		<i>Per Domain</i>	<i>Per Process</i>
PO1	<i>Define a strategic IT plan.</i>	8	8
PO2	<i>Define the information architecture.</i>		8
PO3	<i>Determine technological direction.</i>		8
PO4	<i>Define the IT processes, organisation and relationships.</i>		8
PO5	<i>Manage the IT investment.</i>		8
PO6	<i>Communicate management aims and direction.</i>		8
PO7	<i>Manage IT human resources.</i>		8
PO8	<i>Manage quality.</i>		8
PO9	<i>Assess and manage IT risks.</i>		9
PO10	<i>Manage projects.</i>		8
AI1	<i>Identify automated solutions.</i>	8	8
AI2	<i>Acquire and maintain application software.</i>		8
AI3	<i>Acquire and maintain technology infrastructure.</i>		8
AI4	<i>Enable operation and use.</i>		8
AI5	<i>Procure IT resources.</i>		8
AI6	<i>Manage changes.</i>		8
AI7	<i>Install and accredit solutions and changes.</i>		8

Tabel 4.4. *IT Process Importance Overview – Part 1* (sambungan)

<i>COBIT Process</i>		<i>Per Domain</i>	<i>Per Process</i>
DS1	<i>Define and manage service levels.</i>	8	8
DS2	<i>Manage third-party services.</i>		8
DS3	<i>Manage performance and capacity.</i>		8
DS4	<i>Ensure continuous service.</i>		8
DS5	<i>Ensure systems security.</i>		8
DS6	<i>Identify and allocate costs.</i>		8
DS7	<i>Educate and train users.</i>		8
DS8	<i>Manage service desk and incidents.</i>		8
DS9	<i>Manage the configuration.</i>		9
DS10	<i>Manage problems.</i>		8
DS11	<i>Manage data.</i>		8
DS12	<i>Manage the physical environment.</i>		9
DS13	<i>Manage operations.</i>		8
ME1	<i>Monitor and evaluate IT performance.</i>	8	8
ME2	<i>Monitor and evaluate internal control.</i>		9
ME3	<i>Ensure compliance with external requirements.</i>		8
ME4	<i>Provide IT governance.</i>		8

Dari seluruh 34 proses dalam 4 domain utama yang diolah sistem berdasarkan hasil skor *business goals* dan *IT goals Perseroan*, diperoleh skor dari angka 8 sampai dengan 9 sebagaimana Tabel 4.4. Hal tersebut berarti bahwa seluruh 34 proses TI disarankan untuk dilakukan penilaian.

Tabel 4.5. *IT Process Importance Overview – Part 2*

<i>COBIT Process</i>		<i>In Scope of Assessment</i>		<i>Target Process Maturity Level</i>	
		<i>Suggested</i>	<i>Agreed</i>	<i>Short Term (12 months)</i>	<i>Longer Term (2-3 years)</i>
PO1	<i>Define a strategic IT plan.</i>	Yes	Yes	3	4
PO2	<i>Define the information architecture.</i>	Yes	Yes	3	4
PO3	<i>Determine technological direction.</i>	Yes	Yes	3	4
PO4	<i>Define the IT processes, organisation and relationships.</i>	Yes	Yes	3	4
PO5	<i>Manage the IT investment.</i>	Yes	Yes	3	4
PO6	<i>Communicate management aims and direction.</i>	Yes	Yes	3	4
PO7	<i>Manage IT human resources.</i>	Yes	Yes	3	4
PO8	<i>Manage quality.</i>	Yes	Yes	3	4

Tabel 4.5. *IT Process Importance Overview – Part 2 (sambungan)*

COBIT Process		In Scope of Assessment		Target Process Maturity Level on the ...	
		Suggested	Agreed	Short Term (12 months)	Longer Term (2 - 3 years)
PO9	<i>Assess and manage IT risks.</i>	Yes	Yes	3	4
PO10	<i>Manage projects.</i>	Yes	Yes	3	4
AI1	<i>Identify automated solutions.</i>	Yes	Yes	3	4
AI2	<i>Acquire and maintain application software.</i>	Yes	Yes	3	4
AI3	<i>Acquire and maintain technology infrastructure.</i>	Yes	Yes	3	4
AI4	<i>Enable operation and use.</i>	Yes	Yes	3	4
AI5	<i>Procure IT resources.</i>	Yes	Yes	3	4
AI6	<i>Manage changes.</i>	Yes	Yes	3	4
AI7	<i>Install and accredit solutions and changes.</i>	Yes	Yes	3	4
DS1	<i>Define and manage service levels.</i>	Yes	Yes	3	4
DS2	<i>Manage third-party services.</i>	Yes	Yes	3	4
DS3	<i>Manage performance and capacity.</i>	Yes	Yes	3	4
DS4	<i>Ensure continuous service.</i>	Yes	Yes	3	4
DS5	<i>Ensure systems security.</i>	Yes	Yes	3	4
DS6	<i>Identify and allocate costs.</i>	Yes	Yes	3	4
DS7	<i>Educate and train users.</i>	Yes	Yes	3	4
DS8	<i>Manage service desk and incidents.</i>	Yes	Yes	3	4
DS9	<i>Manage the configuration.</i>	Yes	Yes	3	4
DS10	<i>Manage problems.</i>	Yes	Yes	3	4
DS11	<i>Manage data.</i>	Yes	Yes	3	4
DS12	<i>Manage the physical environment.</i>	Yes	Yes	3	4
DS13	<i>Manage operations.</i>	Yes	Yes	3	4
ME1	<i>Monitor and evaluate IT performance.</i>	Yes	Yes	3	4
ME2	<i>Monitor and evaluate internal control.</i>	Yes	Yes	3	4
ME3	<i>Ensure compliance with external requirements.</i>	Yes	Yes	3	4
ME4	<i>Provide IT governance.</i>	Yes	Yes	3	4

Selanjutnya sesuai dengan penjelasan dari Divisi TI (SisFo), target jangka pendek *maturity level* Perseroan adalah 3 sampai dengan tahun 2012 sesuai dengan akhir implementasi ICTMP. Penilaian sendiri (*self assesment*) terhadap *maturity level* ICT Perseroan pernah diuji coba pada awal tahun 2012 oleh divisi SisFo didampingi tim konsultan independen dengan hasil akhir berada di level 3. Penelitian ini mengevaluasi apakah Perseroan dapat mencapai target *maturity level* pada level 3 di akhir tahun 2012 dan perbaikan apa saja yang perlu dilakukan untuk mencapai target tersebut.

Target *maturity level* jangka panjang belum dirumuskan oleh Perseroan. Namun sebagai tolok ukur peningkatan level, penulis menetapkan target jangka panjang naik 1 level dari jangka pendek menjadi level 4 dalam target waktu 2-3 tahun mendatang, dengan pemikiran bahwa Perseroan perlu memiliki target peningkatan level atas proses pengembangan ICT sebagai faktor pendorong utama perbaikan kinerja TI secara terus menerus, serta peningkatan level dari 3 menjadi 4 perlu persiapan serta strategi yang matang dan terstruktur untuk menjadi proses TI yang dapat bekerja secara efektif dan menjadi “*good practice*” dimana metode pengukuran kepatuhan terhadap prosedur beserta umpan baliknya telah baik dan memadai. *Scope assesment* dan target *maturity level* baik jangka pendek maupun jangka panjang secara lengkap tercantum dalam Tabel 4.5.

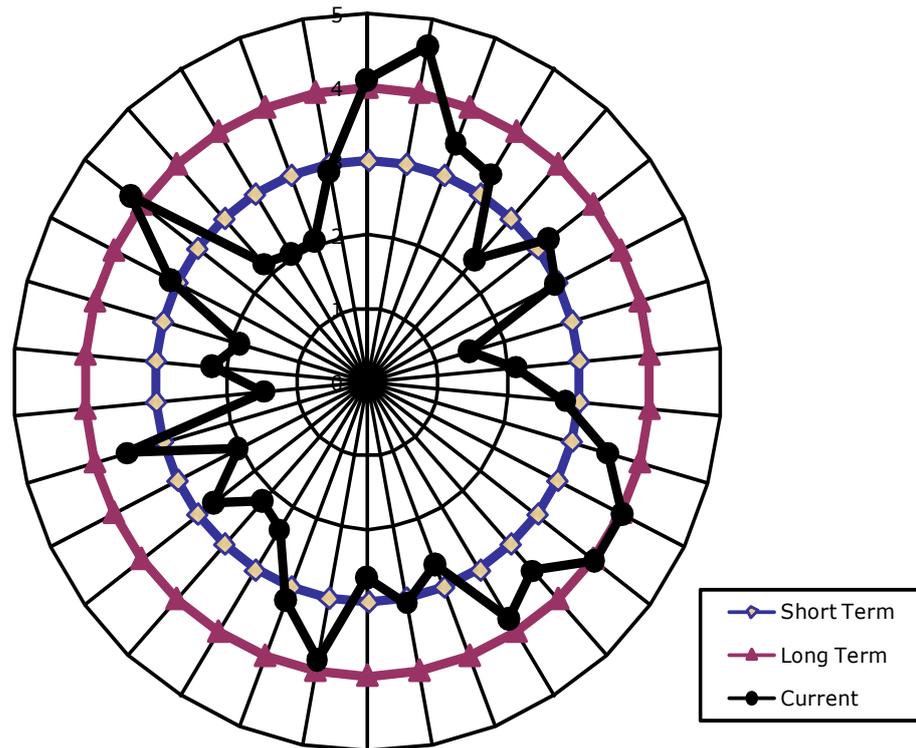
Setelah ruang lingkup penilaian yang telah dikonfirmasi dan target *process maturity* jangka pendek dan jangka panjang dimasukkan dalam tabel konsolidasi, maka dibuat diagram tentang *current maturity level* Perseroan dibandingkan dengan target *maturity level* jangka pendek maupun jangka panjang sebagaimana ditampilkan dalam Gambar 4.1.

4.3. Penyajian Penilaian (*Perform The Assesment*)

Tahap selanjutnya adalah melakukan penilaian *maturity level* secara rinci terhadap masing-masing proses TI yang masuk dalam ruang lingkup penilaian, dalam hal ini terhadap seluruh 34 proses dari 4 domain utama. Hasil penilaian dari masing-masing proses TI tersebut menunjukkan *maturity level* saat ini (*current maturity level*). Selanjutnya *maturity level* yang diperoleh saat ini akan

dibandingkan dengan target *maturity level* baik jangka pendek maupun jangka panjang untuk mengetahui kesenjangan (*gap*).

Current vs. Short and Long Term Target Process Maturity Level



Gambar 4.1. *Current vs Short-Long Term Target Maturity Level*

Rangkaian pemrosesan penilaian *maturity level* tersebut terbentuk dalam modul *assessment overview* yang terdiri dari 5 bagian, yaitu :

1. Daftar proses TI (34 proses dari 4 domain utama COBIT 4.1)
2. Penetapan proses TI yang perlu dinilai (*IT process importance*).
3. Penilaian proses TI terinci per proses pada setiap level (*Assesment Details*)
4. Maturity per proses IT (*target maturity, assesment, gap*)
5. *Weighted gap* (membandingkan hasil perhitungan *current maturity level* dengan target *maturity* baik jangka pendek maupun jangka panjang).

Tabel 4.6 *Current Assessment Maturity Level*

PROSES DOMAIN COBIT 4.1		<i>Current Assessment Maturity Level</i>
PO1	<i>Define a strategic IT plan</i>	4
PO2	<i>Define the information architecture</i>	5
PO3	<i>Determine technological direction</i>	3
PO4	<i>Define the IT processes, organisation and relationships</i>	3
PO5	<i>Manage the IT investment</i>	2
PO6	<i>Communicate management aims and direction</i>	3
PO7	<i>Manage IT Human resources</i>	3
PO8	<i>Manage quality</i>	1
PO9	<i>Assess and manage IT risks</i>	2
PO10	<i>Manage projects</i>	3
AI1	<i>Identify automated solutions</i>	4
AI2	<i>Acquire and maintain application software</i>	4
AI3	<i>Acquire and maintain technology infrastructure</i>	4
AI4	<i>Enable operation and use</i>	3
AI5	<i>Procure IT resources</i>	4
AI6	<i>Manage changes</i>	3
AI7	<i>Install and accredit solutions and changes</i>	3
DS1	<i>Define and manage service levels</i>	3
DS2	<i>Manage third-party services</i>	4
DS3	<i>Manage performance and capacity</i>	3
DS4	<i>Ensure continuous service</i>	2
DS5	<i>Ensure systems security</i>	2
DS6	<i>Identify and allocate costs</i>	3
DS7	<i>Educate and train users</i>	2
DS8	<i>Manage service desk and incidents</i>	4
DS9	<i>Manage the configuration</i>	1
DS10	<i>Manage problems</i>	2
DS11	<i>Manage data</i>	2
DS12	<i>Manage the physical environment</i>	3
DS13	<i>Manage operations</i>	4
ME1	<i>Monitor and evaluate IT performance</i>	2
ME2	<i>Monitor and evaluate internal control</i>	2
ME3	<i>Ensure compliance with external requirements</i>	2
ME4	<i>Provide IT governance</i>	3

Penilaian proses TI menggunakan kuesioner yang berisi pernyataan tentang tata kelola TI yang terbagi dalam 5 kelompok mulai dari *maturity level 0* sampai dengan *maturity level 5*.

Masing-masing kuesioner meminta responden dalam hal ini Pejabat Pengelola TI (divisi SisFo) dan staf fungsional dari divisi penjualan selaku *IT user* untuk memberi tanggapan atas pernyataan dengan gradasi mulai dari sangat tidak setuju (*not at all*), sedikit setuju (*a little*), cukup setuju (*to some degree*) sampai dengan sangat setuju (*completely*). Selanjutnya masing-masing tanggapan pernyataan tersebut dibobot nilai dan kontribusinya pada *maturity level* dengan menggunakan teknik perhitungan proporsi kontribusi yang sama pada semua *maturity level*.

Dari hasil penilaian *business goals*, diperoleh nilai antara 7 sampai dengan 10, yang berarti seluruh proses dalam domain utama dilakukan penilaian. Hasil penilaian *maturity level* dari kuesioner 34 proses secara lengkap dituangkan dalam Tabel 4.6.

Hasil analisis dari kuesioner terhadap masing-masing proses TI yang berada dalam lingkup penilaian dapat diuraikan sebagai berikut :

1. PO1 (*define a strategic IT plan*)

Secara umum, Perseroan telah menyadari perlunya perencanaan strategis dalam bisnis yang harus didukung penuh dengan teknologi informasi dan komunikasi (ICT) yang memadai. Untuk itu Perseroan telah merumuskan ICT *master plan* (ICTMP) berjangka panjang yang implementasinya dilakukan secara bertahap dengan target waktu mulai dari tahun 2008 sampai tahun 2010 secara triwulanan (*ICT roadmap*). ICTMP mencakup 4 pilar proyek utama yang hampir mencakup seluruh aktivitas Perseroan, yaitu *ICT program management* dan *change management*, infrastruktur, proses operasional, dan aplikasi yang seluruhnya bertujuan untuk menyelaraskan strategi TI dengan strategi bisnis Perseroan. Untuk menjalankan ICTMP, Perseroan telah membentuk struktur organisasi ICT namun belum sepenuhnya berjalan efektif karena belum berjalannya organisasi holding secara baik. Sebagian besar konsep penyusunan ICT dilakukan oleh konsultan berdasarkan penggalan informasi atas kebutuhan pengguna dan melakukan *benchmark* terhadap “*good practise*” dari industri

dengan skala usaha hampir sama. Selain itu, dalam implementasinya belum ada kejelasan apakah pengembangan ICT dilakukan oleh pihak internal atau eksternal maupun penyusunan SOP.

2. PO2 (*define the information architecture*)

Perseroan telah memiliki model arsitektur informasi, termasuk telah dilakukannya pengelolaan integritas data. Data dari masing-masing divisi saling berhubungan dan mampu menyediakan informasi yang diperlukan oleh pengguna maupun manajemen untuk pengambilan keputusan. Arsitektur informasi dilengkapi dengan kamus data meskipun belum dibakukan, dan skema pengklasifikasian data belum disusun untuk mengelompokkan data yang bersifat umum, terbatas, rahasia, maupun sangat rahasia.

3. PO3 (*determine technological direction*)

Arah pengembangan teknologi Perseroan telah dirumuskan dalam *ICT master plan*. Perumusan arahan tersebut sebelumnya telah dikomunikasikan dalam forum manajemen untuk menindaklanjuti kebutuhan para pengguna dalam menunjang efektivitas operasional maupun penyelesaian dari masalah teknik TI yang dihadapi, serta sebagian diantaranya merupakan bagian dari strategi bisnis Perseroan. Pengembangan teknologi mencakup rencana pengembangan *hardware*, sistem *software*, maupun aplikasi *software* dari vendor. Monitoring terhadap implementasi pengembangan TI melalui *ICT Master plan* dilakukan oleh PMO (*program management officer*) yang telah dibentuk namun efektivitas implementasi pengembangan TI belum dilakukan pengukuran.

4. PO4 (*define the IT processes, organisation, and relationship*)

Penyusunan *ICT Masterplan* telah melibatkan manajemen, divisi TI (SisFo), pengguna maupun vendor. Alur keterkaitan antar proses ICT telah disusun sedemikian rupa sehingga menunjukkan rangkaian data, informasi dan komunikasi yang saling berhubungan. Pembentukan struktur organisasi ICT (*ICT Steering Committee*) dalam implementasi *ICT Master plan* telah dilakukan namun belum berjalan efektif serta belum ada pengaturan kebijakan dan prosedur (SOP)

sebagai pendukung. SOP yang digunakan masih berupa kebijakan umum yang sudah ada sebelumnya yaitu Prosedur Pengelolaan Sistem Informasi (PPSI). PPSI masih terbatas hanya mengatur kebijakan umum normatif antara lain penggunaan sistem hanya digunakan oleh pihak atau user yang berwenang, seluruh pemimpin unit bertanggung jawab terhadap keamanan data, serta batasan pengguna sistem informasi yang diklasifikasikan sebagai pegawai, pegawai berhenti, tamu perusahaan, dan partner bisnis perusahaan. Sementara struktur organisasi ICT, tugas pokok, tanggung jawab dan kewenangan, pemisahan fungsi setiap jabatan, alur data informasi dan keterkaitannya antara proses bisnis, konfigurasi data serta pengamanannya belum diatur dalam bentuk SOP. Peranan ICT *Steering Committee* saat ini masih dilakukan oleh divisi SisFo yang berada di bawah Departemen Keuangan. Proses penelitian mutu ICT dilakukan oleh *system analyst* atau pihak eksternal.

5. PO5 (*manage the IT investment*)

Kebijakan dan prosedur investasi ICT dan anggarannya telah ditetapkan secara standar, didokumentasikan dan dikomunikasikan dalam level manajemen dengan departemen keuangan yang melibatkan divisi SisFo. Anggaran investasi ICT disusun secara bersama-sama dengan perumusan strategi TI dan rencana bisnis yang dituangkan dalam Rencana Jangka Panjang (RJP) Perseroan. Pengelolaan investasi ICT secara teknis dilakukan oleh Komite Investasi terutama menentukan prioritas anggaran ICT berdasarkan analisa *cost management*, terutama terhadap investasi TI yang bernilai besar dan strategis, namun sebagian besar konsep manajemen investasi TI masih direncanakan dan disusun oleh konsultan independen, belum seluruhnya atas inisiatif atau hasil pengembangan manajemen TI internal Perseroan. Selain itu pengelolaan investasi tersebut belum sampai kepada analisis hasil investasi melalui *benefit management*. Staf TI perlu meningkatkan kemampuan dan keahlian dalam manajemen investasi TI.

6. PO6 (*communicate management aims and direction*)

Perseroan telah memiliki Prosedur Pengelolaan Sistem Informasi yang disosialisasikan melalui jaringan internal Perseroan (intranet). Namun pedoman

pengelolaan tersebut belum mencerminkan secara khusus pengelolaan risiko dan pengamanan TI yang baru dikembangkan, sehingga dapat dipastikan belum terdapat pemantauan dan pengukuran efektivitas proses TI, serta belum ada *punishment* apabila terjadi pelanggaran. Hal tersebut menunjukkan pengendalian internal terhadap kebijakan dan mekanisme pengelolaan TI belum berjalan.

7. PO7 (*manage IT human resources*)

Sumber daya TI dipenuhi dari proses rekrutmen oleh departemen sumber daya manusia, menunjukkan bahwa kebutuhan tenaga TI menjadi perhatian level manajemen. Namun demikian Perseroan belum memiliki SOP dan standar tentang rekrutmen tenaga TI secara khusus. Spesifikasi tenaga TI dalam rekrutmen sangat diperlukan untuk memperoleh tenaga TI yang benar-benar berkompetensi di area TI yang akan ditempati apakah sebagai perancang sistem (*system designer*), *programmer*, atau sebatas operator. Pengembangan kompetensi tenaga TI dilakukan Perseroan melalui pelatihan-pelatihan baik dari internal maupun eksternal yang beberapa diantaranya juga diikuti para staf pengguna TI untuk memberikan pemahaman yang sama.

Departemen sumber daya telah menyusun *job description* dan *key performance indicator* bagi tenaga TI sekaligus bahan evaluasi kinerja yang baru dilakukan secara umum, namun tidak spesifik terhadap penilaian kemampuan TI (*IT skills*) yang diintegrasikan dengan respon terhadap strategi Perseroan. Manajemen sumber daya TI belum terorganisir secara memadai karena tidak adanya konsistensi dengan *good practise* seperti kompensasi, partisipasi dalam forum industri yang sama, *transfer of knowledge*, serta program rotasi.

8. PO8 (*manage quality*)

Perseroan belum menerapkan *quality management system* (QMS) secara formal dan memadai dalam investasi ICT. *Quality Assurance* (QA) hanya dilakukan pada proses pengembangan ICT yang berbasis proyek melalui konsultan independen, sementara QA terhadap pengembangan ICT yang berbasis non proyek dilakukan oleh staf TI. Perseroan telah memiliki prosedur pengembangan sistem (SDLC) dan perubahan sistem (*Change Management*)

namun belum terdokumentasi dengan baik. Saat ini Perseroan sedang menyusun konsep prosedur pengelolaan mutu ICT. Survei kepuasan terhadap para pengguna TI (user) belum dilakukan secara regular.

9. PO9 (*assess and manage IT risks*)

Pengelolaan risiko ICT dilakukan pada level Perseroan, yaitu menjadi bagian dari manajemen risiko umum, tidak dilakukan secara spesifik untuk pengelolaan risiko TI. Perseroan belum memiliki SOP khusus manajemen risiko TI. Penilaian risiko TI diidentifikasi dan dinilai pada saat melakukan pengelolaan risiko umum Perseroan. Sebagai contoh pada tahun 2010, hasil *risk assesment* yang dikategorikan sebagai *High Level Corporate Risk* adalah risiko operasional dari aspek kapasitas produksi dan *kiln breakdown* (disfungsi peralatan utama dalam proses produksi) serta risiko pasar dari aspek kompetisi bisnis. Untuk mitigasi risiko kapasitas produksi dan *kiln breakdown* diperlukan optimalisasi peralatan dan proses produksi dalam rangka meningkatkan output untuk memenuhi *demand*. Sementara risiko kompetisi bisnis menuntut Perseroan melakukan diversifikasi produk dan inovasi jaringan bisnis untuk membangun komunikasi pemasaran yang lebih efektif. Proses ICT memegang peranan penting pada setiap upaya mengatasi seluruh risiko di atas. Namun belum ada penilaian risiko ICT maupun tindakan responsif ICT dalam mengantisipasi risiko secara regular. Prosedur pengelolaan risiko ICT belum dibakukan meski telah dilakukan beberapa *update* pada *risk register*.

10. PO10 (*manage projects*)

Teknik manajemen proyek ICT secara umum telah diatur dalam ICTMP, namun belum sepenuhnya. Dalam ICTMP ditetapkan adanya *Programme Manager Office* (PMO) yang bertugas untuk mengelola proyek TI termasuk melakukan identifikasi risiko maupun langkah yang diperlukan dalam rangka mitigasi risiko. Setiap perubahan yang diperlukan dalam suatu proyek ICT, harus melalui evaluasi dari *ICT Steering Committee* meskipun belum regular dan dalam pelaksanaannya tidak ada pemantauan dan pengukuran kinerja dari vendor TI yang melaksanakan proyek.

11. AI1 (*identify automated solutions*)

Perseroan telah membuat *project charter* yang disusun berdasarkan kesepemahaman dengan para pengguna TI atas perlunya solusi otomasi pada hasil penilaian risiko ICT yang dihadapi Perseroan. Tahapan penyusunan *project charter* diawali dengan analisis risiko dan melakukan studi kelayakan solusi otomasi.

12. AI2 (*acquire and maintain application software*)

Permintaan aplikasi software dibedakan untuk yang berbiaya atau non biaya. Pengembangan aplikasi berbiaya terutama untuk core bisnis Perseroan yang memerlukan rancangan tingkat tinggi (*high level design*) secara cermat, sementara pengembangan aplikasi non biaya biasanya dilakukan oleh tenaga TI internal. Dokumentasi atas permintaan aplikasi software, pemenuhan, maupun permasalahannya telah dilakukan namun belum memadai.

13. AI3 (*acquire and maintain technology infrastructure*)

Pengadaan infrastruktur ICT yang dilakukan Perseroan cukup baik, yaitu diawali dengan tahap komunikasi antara manajemen dengan pengguna untuk mengetahui kebutuhan yang mampu mempercepat strategi bisnis. Selanjutnya dibuat perencanaan pengadaan infrastruktur dan pengamanan yang diperlukan. Pengadaan infrastruktur TI telah dipelihara, namun terkait dengan vendor, Perseroan belum memiliki SOP tentang penelitian jaminan pihak ketiga. Laporan pemasangan ICT maupun pemenuhan instalasi infrastruktur ICT belum dilakukan.

14. AI4 (*enable operation and use*)

Dalam hal pengadaan aplikasi ICT, proses *release management* sebagian telah dilakukan berupa pelatihan untuk pengoperasian ICT (*training materials*). Pelatihan dilakukan kepada semua pihak yang terkait dengan proses bisnis, terutama pengguna maupun staf TI sebagai perwakilan divisi SisFo untuk pemeliharannya. Pelaksanaan pelatihan dilakukan oleh Bagian Diklat Perseroan. Dari pelatihan tersebut terdapat masukan dari para pengguna maupun staf TI untuk penyempurnaan aplikasi, namun baik masukan maupun *feedback* belum

terdokumentasi dengan baik. Beberapa aplikasi ICT yang pengadaannya oleh konsultan independen, belum dilengkapi dengan dokumentasi yang memadai, terutama *user manual*.

15. AI5 (*procure IT resources*)

Seluruh pengadaan aplikasi ICT dilakukan dengan mekanisme yang mengacu kepada peraturan Perseroan mengenai Pengadaan Barang dan Jasa, tidak terdapat standar khusus yang mengatur *IT procurement*, termasuk belum adanya standar kualitas aplikasi ICT dan sebagian didasarkan kepada rekomendasi konsultan independen. Divisi SisFo turut serta dalam proses seleksi vendor maupun analisa kelayakannya. Laporan atas proses pengadaan ICT dituangkan secara tertulis kepada level manajemen apabila terkait dengan investasi ICT yang bernilai besar dan bersifat strategis terhadap proses bisnis, seperti aplikasi sistem ERP SAP.

16. AI6 (*manage changes*)

Penggunaan aplikasi ICT yang baru diikuti dengan perubahan manajemen (*change management*) secara umum, namun belum terlalu formal dan masih perlu support dari level manajemen untuk penerapannya. Proses *change management* baru tampak pada saat implementasi ICT yang bernilai besar dan terkait dengan pengembangan strategi bisnis Perseroan yang memerlukan perubahan ICT sedemikian besar. Proses *change management* tersebut belum disertai dengan dokumentasi yang baik, termasuk pencatatan perubahan aplikasi maupun prosedur perubahan darurat (*emergency change*) maupun penilaian atau pengukuran atas dampak *change management*.

17. AI7 (*install and accredit solutions and changes*)

Pengadaan aplikasi ICT terlebih dulu dilakukan pembuatan rencana pengujian (*test plan*) namun belum konsisten. Sebelum dilakukan instalasi, terdapat proses pengujian dan *user acceptance test* (UAT) yang dilakukan oleh divisi SisFo bersama Departemen Litbang dengan pemberian pelatihan kepada para pengguna maupun staf TI. Metodologi formal yang berhubungan dengan

instalasi, migrasi, konversi maupun *user acceptance* telah ada yang terkait pula dengan mekanisme *change management* dan *release management*, namun belum dibakukan dalam bentuk SOP. Evaluasi pasca implementasi belum dilakukan secara periodik, namun baru dilakukan atas dasar pengaduan pengguna.

18. DS1 (*define and manage service levels*)

Service Level Management (SLA) dalam pengadaan ICT telah diterapkan pada sebagian proyek. Terdapat SLA pada beberapa layanan TI yang menjadi dasar perumusan *Key Performance Indicator* (KPI). Pemantauan dan evaluasi terhadap pemenuhan SLA telah dilakukan meski belum secara formal, dan *root cause analysis* dilakukan manakala SLA tidak terpenuhi. Evaluasi pemenuhan SLA belum memiliki standar baku dan belum terdapat metode pengukurannya.

19. DS2 (*manage third-party service*)

Tata kelola jasa vendor ICT dilakukan sesuai mekanisme pengadaan barang dan jasa Perseroan, termasuk dokumentasi kebijakan dan prosedur pengelolaan vendor penyedia jasa ICT. Namun demikian, sebagian dari penggunaan jasa vendor TI belum didasarkan atas *service requirement* yang standar dan jelas serta belum terdapat identifikasi dan analisis potensi risiko yang akan muncul dalam penggunaan layanan ICT vendor. Laporan kinerja vendor ICT belum diadakan dan belum ada pemantauan kinerja secara periodik, pengawasan internal Perseroan baru berjalan pada kinerja layanan vendor yang investasinya besar dan berpengaruh secara signifikan dalam proses bisnis Perseroan.

20. DS3 (*manage performance and capacity*)

Penilaian kinerja sistem ICT berdasarkan *capacity requirement* belum dibuat format standarnya, karena baru didefinisikan setiap akan membuat proyek. Dokumen yang terkait dengan *service level requirement* belum sepenuhnya tersedia dan dibakukan dalam bentuk formal. Penentuan alat dan proses pengukuran kinerja penggunaan sistem, kapasitas maupun hasil belum tersedia secara memadai untuk dapat diperbandingkan dengan target pencapaian tujuan bisnis, karena umumnya pengadaan infrastruktur ICT berdasarkan

permintaan/kebutuhan pengguna (*reactive*) bukan hasil dari perencanaan (*initiative*). Kondisi tersebut menyebabkan tidak dapat dilakukannya *trend analysis* atas kinerja IT terhadap peningkatan volume bisnis.

21. DS4 (*ensure continuous services*)

Pengadaan infrastruktur ICT oleh vendor telah mencakup perlunya jaminan atas keberlangsungan layanan sistem (*continuous service*) dari vendor terkait, namun belum standar dan belum ada pertanggungjawabannya. Tuntutan atas *continuous service* telah dikomunikasikan pada level manajemen. Dalam rangka *continuous service*, divisi TI telah melakukan *disaster recovery testing* dan masih terdapat *single point of failure* namun belum terdapat pelaporannya. Saat ini divisi TI berkoordinasi dengan vendor dan konsultan sedang menyelesaikan *Disaster Recovery Planning* (DRP), dengan mengklasifikasikan insiden atau musibah (*disaster*) yang mungkin terjadi. DRP ini nantinya akan dilakukan testing dan didokumentasikan dalam bentuk SOP.

22. DS5 (*ensure system security*)

Prosedur Pengelolaan Sistem Informasi telah dimiliki Perseroan dan disosialisasikan kepada seluruh pengguna maupun staf TI, yang di dalamnya termasuk ketentuan mengenai sistem pengamanan ICT meskipun masih sederhana berupa pengaturan hak akses, pengaturan ruang server dengan sistem pendingin dan pengatur suhu udara, melakukan *back up* data secara periodik yang harus disimpan diluar ruang server, serta pengujian *back up* yang perlu dilakukan secara periodik untuk memastikan *back up* data dapat direstore. Sementara pengaturan pengamanan yang harus dilakukan baik pada perangkat hardware maupun software belum terdapat pada kebijakan tersebut. Pengamanan ICT standar merupakan paket dari vendor atas pengadaan infrastruktur ICT, antara lain pengaturan hak akses pada pemilik proses bisnis berupa *user identification*, *authentication*, dan *authorisation* standar serta instalasi anti virus (*firewall*) pada setiap aplikasi. Namun efektivitas dari sistem pengamanan ICT ini belum dilakukan pemeriksaan secara periodik oleh internal audit maupun eksternal audit, termasuk pula belum adanya *vulnerability test* terhadap aplikasi ICT.

23. DS6 (*identify and allocate costs*)

Pengadaan infrastruktur ICT diperlakukan sebagai biaya operasional (*overhead cost*) Perseroan, tidak dilakukan pembebanan biaya (*charging*) terhadap pengguna atau pemilik proses bisnis. Layanan ICT yang melibatkan beberapa pengguna (*shared service*) juga tidak dilakukan perincian biaya kepada masing-masing pengguna. Pengontrolan dan evaluasi biaya operasional terkait ICT dilakukan dan akan ditindaklanjuti (*action*) apabila terjadi deviasi antara anggaran dan realisasinya, namun belum ada pengukuran efektivitas biaya TI terhadap layanan yang diberikan. Perseroan belum menyelenggarakan formal training mengenai manajemen biaya layanan informasi (*information services cost management*) agar dipahami oleh setiap level perlunya identifikasi alokasi biaya untuk infrastruktur TI dibandingkan dengan kualitas layanan yang diberikan.

24. DS7 (*educate and train users*)

Pengadaan infrastruktur ICT disertai dengan pelatihan (*training*) yang diperlukan bagi pengguna maupun staf TI. Pelatihan ini dimotori oleh Bagian Diklat dan didukung penuh oleh Divisi SisFo. Perseroan telah mengakomodir kebutuhan anggaran, fasilitas, sumber daya maupun mentor dalam pelaksanaan training. Namun hasil training belum dilakukan pengukuran secara standar yang dapat menjadi sarana pengembangan jalur karir pegawai.

25. DS8 (*manage service desk and incidents*)

Pasca implementasi infrastruktur ICT, Perseroan yang dalam hal ini divisi TI terkait belum memiliki sarana sentral yang berfungsi sebagai *service desk* untuk menangani berbagai *problem query* yang timbul pada pengguna selama implementasi ICT. Proses Q and A (*question and answer*) selama percobaan maupun implemnatsi ICT telah didokumentasikan namun belum sepenuhnya menjadi pedoman yang mengikat bagi pengguna untuk menyelesaikan masalah.

26. DS9 (*manage the configurations*)

Pengelolaan *basic configuration* dalam infrastruktur ICT belum dibuat ketentuan secara standar dan formal. Pemeliharaan inventaris *hardware* dan

software ICT masih dilakukan secara individual basis. Selain itu fungsi internal audit belum menyentuh kepada perlunya penyediaan data mengenai *hardware* dan *software* yang penting untuk perbaikan, peningkatan layanan, jaminan, *upgrade*, maupun *technical assesment* pada setiap unit kerja bisnis. Kontrol terhadap *business requirement IT* belum sampai kepada deteksi dan pemeriksaan fisik apabila terjadi deviasi antara prosedur dengan infrastruktur TI. Konfigurasi data masih terbatas dan belum digunakan secara optimal dalam proses *change management* maupun *problem management*.

27. DS10 (*manage problems*)

Manajemen penyelesaian problem ICT beserta prosesnya belum dilakukan standarisasi. Review atas problem yang terjadi (*insident*) dan analisis dari identifikasi problem relatif masih terbatas dan baru dilakukan secara informal. Penyelesaian problem ICT belum terintegrasi secara utuh dalam proses yang saling berinteraksi. Penyelesaian problem ICT bersifat reaktif dan belum *forward looking* untuk berkontribusi terhadap pencapaian tujuan TI Perseroan.

28. DS11 (*manage data*)

Prosedur Pengelolaan Sistem Informasi yang dimiliki Perseroan sudah mengatur tentang kepemilikan data. Kepemilikan data ditentukan oleh bagian yang bertanggung jawab untuk melakukan pengawasan integritas dan pengamanan data, namun belum terdapat standar penentuan masa berlakunya data bagi setiap pemilik data. Kunci pengelolaan data yang dipantau dalam proses ICT adalah mekanisme *back up, restoration, disposal*. Penyimpanan media *back up* dilakukan pada lokasi *remote site*, sementara disposal data dilakukan oleh Unit Kesehatan dan Keselamatan Kerja.

29. DS12 (*manage the physical environment*)

Perseroan telah memiliki *data center* beserta pengamanannya yang didirikan dengan mempertimbangkan faktor *natural hazards*, namun pada OpCo belum ada dan dikomunikasikan. Pengamanan akses ke data center sudah diadakan, namun tidak semua berlaku restriksi atau *log register* bagi visitornya.

Pemulihan sumber daya komputer belum terstruktur dan belum dilakukan secara periodik dalam rangka proses manajemen risiko Perseroan.

30. DS13 (*manage operations*)

SOP sudah didokumentasikan pada beberapa aktivitas layanan ICT. Sementara itu, dokumentasi dan standarisasi proses manajemen operasional IT belum bisa menjadi *knowledge basis* untuk melakukan perbaikan berkesinambungan (*continuous improvement*). Pemeliharaan terhadap aplikasi ICT sudah dilakukan secara reguler, sementara pemantauan terhadap infrastruktur pendukung ICT secara keseluruhan dilakukan dengan sarana *alert system*.

31. ME1 (*monitor and evaluate IT performance*)

Kinerja ICT dipantau dan dievaluasi melalui *Key Performance Indicators* (KPI) yang indikatornya telah direview secara periodik untuk menjamin kesesuaian dengan proses ICT terkini. Pemantauan dan evaluasi kinerja ICT dilakukan oleh divisi SisFo secara reguler berupa pengumpulan data KPI untuk dilaporkan kepada manajemen melalui unit yang ditunjuk oleh Tim Investasi. Proses pemantauan dan evaluasi kinerja ICT berbasis KPI masih dilakukan pada proses ICT secara individual dan tidak terintegrasi pada seluruh proses ICT. Pengukuran kontribusi layanan ICT terhadap pencapaian kinerja Perseroan belum menggunakan pengukuran dari sisi finansial maupun kriteria operasional, namun masih sebatas tingkat pencapaian target dalam KPI.

32. ME2 (*monitor and evaluate internal control*)

Penilaian internal control ICT tidak dilakukan secara khusus, namun menjadi bagian dari general audit Perseroan baik yang dilakukan oleh Internal Audit maupun eksternal audit, dimana metodologi dan kemampuannya belum mencerminkan adanya fungsi layanan informasi. Namun dalam rangka membangun internal kontrol ICT yang lebih memadai, maka staf TI yang terampil mulai disertakan dalam *internal control assesment*. Sampai saat ini belum terdapat divisi atau unit kerja yang secara formal diberikan tanggung jawab oleh Perseroan untuk melakukan pemantauan efektivitas internal kontrol ICT, namun hampir

dapat dikatakan bahwa divisi TI (SisFo) yang melakukan fungsi tersebut meskipun belum konkrit dan memiliki panduan pemeriksaan (SOP) yang jelas dan terdokumentasi dengan baik. Selain itu apabila fungsi internal control dilakukan oleh divisi SisFo, maka akan terdapat *conflict of interest*.

33. ME3 (*ensure compliance with external requirements*)

Pengadaan infrastruktur TI diarahkan untuk memperhatikan peraturan yang berlaku, kepatuhan persyaratan hukum dan kontraktual yang dapat mempengaruhi Perseroan. Perencanaan, kebijakan, maupun prosedur (SOP) telah dibuat, didokumentasikan, dan dikomunikasikan untuk memastikan kepatuhan terhadap peraturan yang berlaku maupun pemenuhan aspek hukum. Namun kadang kala prosedur pengadaan maupun implementasinya belum sepenuhnya mengikuti atau sesuai dengan SOP yang telah dibuat.

34. ME4 (*provide IT governance*)

Perumusan strategi ICT telah diupayakan sejalan dengan tujuan dan strategi bisnis Perseroan (*strategic alignment*) dengan tetap berpegang pada tata kelola Perseroan yang baik (GCG). Perseroan juga dalam proses penyusunan ICT *Governance framework* yang mencakup *IT planning, delivery* dan *monitoring processes*. Pendekatan *IT Governance* masih bersifat *ad hoc*, reaktif dan sporadis yang diaplikasikan secara individual atau kasus per kasus. Proses dan perangkat untuk mengukur *IT Governance* oleh Internal Audit relatif masih terbatas karena masih belum adanya tenaga yang ahli di bidang tersebut. Dengan kondisi tersebut, tata kelola ICT Perseroan belum menjamin adanya penerapan *IT Governance* secara memadai, demikian pula proses pengukuran kinerja manajemen maupun tata kelola TI berdasarkan *Key Performance Indicators (KPI)* belum jelas.

4.4. Hasil Penilaian (Review The Assesment Results)

Dari proses penilaian tata kelola TI Perseroan yang telah dilakukan dengan metode *maturity level* COBIT 4.1 sebagaimana yang dikemukakan di atas, diperoleh hasil bahwa *IT process* bervariasi namun dapat dirata-rata berada di antara level 2 (*Repeatable but Intuitive*) dan level 3 (*Defined Process*). Artinya, sebagian dari IT process Perseroan belum memiliki standar dan dokumentasi baku

yang berlaku pada proyek terkait beserta pertanggungjawaban atas pengelolaan maupun pengamanan data, seluruhnya masih mengacu kepada kebijakan dan prosedur yang berlaku umum dalam Prosedur Pengelolaan Sistem Informasi sehingga belum mampu melakukan deteksi terhadap kelemahan atau deviasi yang terjadi, kecuali ada pengaduan dari pengguna (reaktif dan sporadis).

Hasil penilaian *maturity level* saat ini dengan target jangka pendek yang level 3, relatif tidak terdapat kesenjangan atau hampir sama. Namun dibandingkan dengan target *maturity level* jangka panjang Perseroan untuk mencapai level 4, maka terdapat kesenjangan (gap) 1 level dengan *maturity level* saat ini.

Secara ringkas, rekomendasi yang dapat diberikan dalam rangka mengatasi kesenjangan target *maturity level* yang diharapkan dalam waktu jangka pendek tertuang dalam Tabel 4.7. berikut.

Tabel 4.7. Rekomendasi Perbaikan *Maturity Level* Jangka Pendek

No.	Proses TI	Current ML	Target Jangka Pendek	Target Jangka Panjang	Rekomendasi
1	PO7	3	3	4	<ul style="list-style-type: none"> - Divisi SisFo berkoordinasi dengan HRD membuat <i>personnel qualification</i> atau <i>personnel clearance</i> pada saat perekrutan tenaga TI. - Merekrut tenaga auditor TI internal sebagai bagian dari divisi Internal Audit.
2	ME2	2	3	4	<ul style="list-style-type: none"> - Membentuk unit khusus internal audit TI di bawah pengendalian divisi internal audit secara struktur organisasi. - Divisi internal audit menyusun SOP internal audit TI dalam rangka evaluasi internal kontrol TI. - Divisi Internal Audit melakukan evaluasi atas internal kontrol TI secara berkala.

Tabel 4.7. Rekomendasi Perbaikan *Maturity Level* Jangka Pendek (sambungan)

No.	Proses TI	Current ML	Target Jangka Pendek	Target Jangka Panjang	Rekomendasi
3	DS9	1	3	4	- Melakukan internal audit khusus TI secara berkala yang selama ini belum berjalan.
4	DS5	2	3	4	- Melakukan pengujian sistem pengamanan sistem secara regular namun <i>surprised</i> oleh internal audit TI maupun pihak independen.
5	ME1	2	3	4	- Penghimpunan data dan informasi pencapaian KPI dilakukan oleh auditor internal TI atau pihak independen untuk menjamin tidak adanya conflict of interest.
6	ME3	2	3	4	- Divisi SisFo melakukan identifikasi seluruh ketentuan internal dan eskternal yang wajib dipatuhi dalam rangka implementasi TI. - Divisi Internal audit memasukkan evaluasi pemenuhan ketentuan internal maupun eksternal dalam cakupan audit.
7	PO6	3	3	4	- Meninjau secara berkala terhadap Pedoman Pengelolaan Sistem Informasi, apakah sudah mengcover pengembangan TI yang terbaru beserta pengamanannya (minimal 1 kali setahun).
8	PO8	1	3	4	- Divisi SisFo mendokumentasikan SOP pengelolaan mutu ICT secara formal.

Tabel 4.7. Rekomendasi Perbaikan *Maturity Level* Jangka Pendek (sambungan)

No.	Proses TI	Current ML	Target Jangka Pendek	Target Jangka Panjang	Rekomendasi
9	PO9	2	3	4	<ul style="list-style-type: none"> - Membuat SOP manajemen risiko TI secara khusus sebagai pedoman tata kelola risiko TI, terpisah dari SOP manajemen risiko umum. - Mengikutsertakan seluruh staf TI dalam pelatihan manajemen risiko TI secara rutin. - Memasukkan tugas pengelolaan risiko TI ke dalam <i>job discription</i> pegawai divisi SisFo.
10	PO3	3	3	4	<ul style="list-style-type: none"> - Melakukan audit oleh pihak independen terhadap hasil implementasi ICT, apakah pengembangan TI telah memenuhi proyek yang direncanakan atau terjadi deviasi. - Hasil audit harus mampu menyajikan deviasi dan identifikasi problem sebagai dasar pengembangan TI selanjutnya.
11	PO4	3	3	4	<ul style="list-style-type: none"> - Melakukan survei kepuasan pengguna ICT secara regular oleh pihak independen untuk mengevaluasi tingkat kualitas ICT (minimal 2 kali setahun).
12	AI4	3	3	4	<ul style="list-style-type: none"> - Divisi SisFo mendokumentasikan prosedur <i>release management</i> setiap ada proyek TI baru. - Divisi SisFo membuat user manual setiap operasional TI.

Tabel 4.7. Rekomendasi Perbaikan *Maturity Level* Jangka Pendek (sambungan)

No.	Proses TI	Current ML	Target Jangka Pendek	Target Jangka Panjang	Rekomendasi
	<i>DS 12 (Lanjutan)</i>				- Divisi SisFo mendokumentasikan <i>feedback</i> yang disampaikan oleh para user sebagai bagian dari proses <i>continuous improvement</i> .
13	DS12	3	3	4	- Divisi SisFo meningkatkan pengamanan data center berupa pengaturan hak akses dan log register.

Sementara untuk mengatasi kesenjangan target yang dapat dilakukan dalam jangka menengah atau panjang sebagaimana tertuang dalam Tabel 4.8. berikut.

Tabel 4.8. Rekomendasi Perbaikan *Maturity Level* Jangka Panjang

No.	Proses TI	Current ML	Target Jangka Pendek	Target Jangka Panjang	Rekomendasi
1	PO5	2	3	4	- Staf TI Perseroan meningkatkan keahlian dalam pengembangan TI dan pengetahuan/kemampuan menyusun anggarannya agar mampu memberi ide investasi TI secara efisien dan tepat guna.
2	DS7	2	3	4	- Program training dilengkapi dengan sistem evaluasi bagi user (ujian akhir) untuk mengukur kemampuan user dan efektivitas training sekaligus evaluasi program training selanjutnya.

Tabel 4.8. Rekomendasi Perbaikan *Maturity Level* Jangka Panjang (sambungan)

No.	Proses TI	Current ML	Target Jangka Pendek	Target Jangka Panjang	Rekomendasi
3	DS4	2	3	4	- Mendokumentasikan <i>DRP Testing</i> agar dapat diidentifikasi seluruh potential problem untuk diakomodir dalam <i>DRP</i> .
4	DS10	2	3	4	- Mendokumentasikan hasil analisis problem TI dan tindak lanjut perbaikannya sebagai bahan masukan pengelolaan dan pengamanan TI yang standar dan formal berikutnya (<i>forward looking</i>).
5	DS11	2	3	4	- Masing-masing pemilik data menyusun daftar retensi data.
6	PO10	3	3	4	- Membuat <i>job description</i> secara jelas beserta wewenang dan pertanggungjawaban dari steering committee ICTMP.
7	AI6	3	3	4	- Divisi SisFo mendokumentasikan prosedur <i>change management</i> , termasuk perubahan darurat yang diperlukan dalam kondisi tertentu.
8	AI7	3	3	4	- Divisi SisFo melakukan post implementation review secara berkala, bukan semata atas dasar pengaduan user.
9	DS1	3	3	4	- Divisi SisFo membuat standarisasi evaluasi SLA setiap proyek TI.
10	DS3	3	3	4	- Divisi SisFo membuat dan mendokumentasikan <i>capacity requirement</i> pada setiap proyek TI sebagai dasar evaluasi layanan TI kepada user.

Tabel 4.8. Rekomendasi Perbaikan *Maturity Level* Jangka Panjang (sambungan)

No.	Proses TI	Current ML	Target Jangka Pendek	Target Jangka Panjang	Rekomendasi
11	DS6	3	3	4	<ul style="list-style-type: none"> - Perseroan melakukan benchmark dengan perusahaan lain dengan skala sama atas investasi TI untuk mengukur efektivitasnya. - Divisi SisFo bekerjasama dengan bagian litbang melakukan training formal tentang IT service cost management.
12	ME4	3	3	4	<ul style="list-style-type: none"> - Melakukan audit <i>IT Governance</i> oleh pihak independen secara regular (minimal 1 kali setahun).

Adapun perbaikan yang dapat disarankan penulis dalam rangka meningkatkan *maturity level* menjadi level 4 pada masing-masing domain COBIT 4.1 secara umum adalah sebagai berikut :

1. *Plan and Organise*

- Struktur organisasi TI yang telah dibentuk perlu dijalankan secara efektif sehingga tata kelola TI dapat dilaksanakan, dimonitor dan dikendalikan secara baik.
- Membuat kebijakan dan prosedur (SOP) seluruh proses TI serta didokumentasikan secara baik untuk selanjutnya disosialisasikan kepada para pengguna untuk memperoleh tingkat pemahaman tujuan dan proses TI yang sama.
- SOP proses TI dibuat secara rinci dan menyeluruh beserta *enforcementnya* dengan memperhatikan seluruh aspek risiko TI dan sistem pengamanan TI yang diperlukan sehingga mampu mendeteksi secara dini setiap problem.

- Tata kelola risiko TI agar dibuat secara formal yang dapat mengacu kepada sistem manajemen risiko Perseroan dengan meningkatkan update register risiko, penilaian risiko, maupun mitigasi terhadap risiko.
- Evaluasi dan pengukuran oleh pihak independen terhadap kemampuan pencapaian target yang dituangkan dalam ICT masterplan agar dilakukan secara regular sehingga dapat menyesuaikan dengan strategi bisnis.
- Melakukan analisis hasil investasi melalui *benefit management* untuk mengetahui sejauh mana investasi TI yang dilakukan terhadap peningkatan kinerja dan hasil Perseroan agar pengadaan infrastruktur TI dapat efisien dan tepat guna.

2. *Acquire and Implement*

- Prosedur pengembangan sistem (SDLC) dilakukan rutin dan konsisten.
- Prosedur pengelolaan *release management* dibuat secara formal agar tata kelola TI dapat berjalan lancar selama implementasi.
- Prosedur pelaksanaan pemeliharaan TI secara berkala perlu dibakukan untuk menjamin kualitas TI.
- Membuat prosedur pengelolaan perubahan (*change management*) termasuk mengenai perubahan darurat (*emergency*) untuk mendukung implementasi TI.

3. *Deliver and Support*

- Melakukan pemantauan dan evaluasi pemenuhan SLA dengan metode pengukuran yang formal agar dapat memastikan bahwa proses TI sesuai *capacity requirement* dan mampu memenuhi tujuan bisnis.
- Melakukan evaluasi kinerja vendor secara periodik dan terdokumentasi.
- Membuat sarana sentral (*service desk*) untuk menangani problem user sehingga memiliki solusi standar yang mengikat dan terdokumentasi.
- Meningkatkan pengelolaan konfigurasi data serta pengawasan integritas maupun pengamanan data.

4. *Monitor and Evaluate*

- Penghimpunan data evaluasi pencapaian *Key Performance Indicators* (KPI) dilakukan pihak independen untuk menghindari *conflict of interest*.

- Manajemen menetapkan pihak yang bertanggung jawab terhadap pelaksanaan internal control TI, agar pengawasan terhadap pelaksanaan SOP proses TI untuk menilai *governance* terhadap seluruh peraturan dan kebijakan internal maupun eksternal dapat dilakukan secara efektif.
- Pelaksanaan IT Governance dilakukan secara proaktif, bukan reaktif dan sporadis (*ad hoc*).

4.4. Keterbatasan Penelitian

Dalam melakukan penelitian, penulis memiliki keterbatasan waktu penelitian yang relatif singkat, penggalian informasi diperoleh dari wawancara kepada narasumber, yaitu pejabat divisi TI untuk memperoleh gambaran umum kebijakan pengembangan dan tata kelola TI serta wawancara kepada user TI di divisi penjualan untuk mengetahui sejauh mana implementasi TI dapat mendukung pelaksanaan kerja maupun strategi bisnis utama Perseroan.

Dokumen dan data untuk penelitian diperoleh dari narasumber, namun penulis tidak melakukan konfirmasi (*crosscheck*) kepada bagian-bagian yang terkait karena keterbatasan akses penulis. Program ICT yang diteliti adalah proyek Semen Gresik Grup mencakup Perseroan beserta PT. Semen Tonasa dan PT. Semen Padang, namun penelitian hanya dilakukan pada tata kelola TI pada PT. Semen Gresik selaku perusahaan induk dengan pertimbangan telah mewakili kondisi holding sebagai *pilot project*.

Penelitian terhadap fungsi internal audit tidak dilakukan secara mendalam, mengingat berdasarkan hasil wawancara dan pengamatan, fungsi internal audit Perseroan bersifat umum dan belum secara khusus kepada TI serta belum ada rekrutmen internal audit TI.

BAB 5

KESIMPULAN DAN SARAN

5.1. Kesimpulan

Perumusan strategi tata kelola TI PT. Semen Gresik (Persero) Tbk. telah sejalan dengan pelaksanaan strategi bisnis dalam rangka mencapai tujuan Perseroan. Dari hasil audit tata kelola TI melalui *maturity level assesment* COBIT 4.1, tingkat kematangan proses TI Perseroan saat ini berada pada level antara 2 (*Repeatable but Intuitive*) dan 3 (*Defined Process*), relatif terdapat sedikit kesenjangan (*gap*) dengan target *maturity level* jangka pendek yang ditetapkan Perseroan yaitu 3 (*Defined Process*). Hal tersebut dicerminkan dari sebagian dari *IT process* Perseroan belum memiliki standar dan dokumentasi baku yang berlaku pada beberapa proyek TI, termasuk pengaturan pertanggungjawaban atas pengelolaan TI, pengamanan data, maupun internal kontrol TI.

Dalam implementasinya, masih terdapat ketergantungan cukup tinggi terhadap konsultan maupun vendor untuk sebagian besar pengelolaan proyek TI, terutama yang terkait langsung dengan proses bisnis Perseroan yang bernilai investasi cukup besar dan strategis. Sosialisasi dan pelatihan telah dilakukan secara memadai untuk sebagian besar proyek TI, namun belum sepenuhnya menciptakan independensi pengelolaan TI. Seluruh proses TI masih mengacu kepada kebijakan dan prosedur yang berlaku umum di Perseroan yang tertuang dalam Prosedur Pengelolaan Sistem Informasi, sehingga belum mampu melakukan deteksi terhadap kelemahan atau deviasi yang terjadi, kecuali ada pengaduan dari pengguna (reaktif dan sporadis).

Dibandingkan dengan target *maturity level* jangka panjang Perseroan mencapai level 4, maka terdapat kesenjangan (*gap*) 1 level dengan *maturity level* yang dicapai saat ini. Kesenjangan tersebut berupa belum terdapatnya mekanisme evaluasi hasil kinerja TI dan pengukuran kontribusinya terhadap pencapaian tujuan bisnis Perseroan. Pelaksanaan audit hasil implementasi ICT Perseroan akan dilakukan pada tahun 2012 ini. Selain itu, dalam unit kerja Perseroan belum terdapat pihak yang diberikan tanggung jawab untuk melakukan audit tata kelola TI, sepenuhnya dilakukan oleh pihak eksternal yang independen.

5.2 . Saran

Untuk melakukan peningkatan *maturity level* tata kelola TI sesuai target jangka panjang untuk mencapai level 4 (*Managed and Measurable*), maka penulis menyarankan kepada Perseroan untuk melakukan beberapa hal sebagai berikut :

1. Membuat dan mendokumentasikan kebijakan dan prosedur (SOP) tentang seluruh proses dan tata kelola TI secara formal dan terinci sebagai pedoman standar bagi seluruh pengguna, dengan tetap berpegang kepada prinsip manajemen risiko dan *Good Corporate Governance*.
2. Struktur organisasi TI yang telah dibentuk agar dijalankan secara efektif dan optimal.
3. Melakukan prosedur pengelolaan *release management* secara formal agar tata kelola TI dapat berjalan sesuai tujuan bisnis Perseroan.
4. Melakukan analisis hasil investasi melalui *benefit management* untuk mengetahui sejauh mana investasi TI yang dilakukan terhadap peningkatan kinerja dan hasil Perseroan agar pengadaan infrastruktur TI dapat efisien dan tepat guna.
5. Meningkatkan pengelolaan konfigurasi data serta pengawasan integritas maupun pengamanan data.
6. Penghimpunan data dalam rangka evaluasi pencapaian *Key Performance Indicators* (KPI) hendaknya dilakukan oleh pihak independen untuk menghindari *conflict of interest*.
7. Manajemen menetapkan unit kerja yang bertanggung jawab terhadap pelaksanaan internal control TI, agar pengawasan terhadap pelaksanaan SOP proses TI dalam rangka meyakini penerapan *IT governance* terhadap seluruh peraturan dan kebijakan internal maupun eksternal telah dilakukan secara efektif.

DAFTAR PUSTAKA

- Cannon, David L., (2008), *CISA : Certified Information Systems Auditor Study Guide*, Wiley Publishing, Inc., Indiana. USA.
- Hunton, James E, Bryant, Stephanie M, Bagranoff, Nancy A, (2004), *Core Concepts of Information Technology Auditing*. Willey International, Edition 2004.
- ISACA, (2009). *Maturity Assesment Tool User Guide*, Illinois, USA.
- IT Governance Institute, (2007), *COBIT 4.1. : Framework, Control Objectives, Management Guidelines, Maturity Models*. Illinois, USA.
- IT Governance Institute, (2003), “*Board Briefing on IT Governance*,” Illinois, USA.
- Kaplan, Robert S. & Norton David P. (1992). *The Balanced Scorecard Measures that Drive Performance*. Harvard Business Review, 4-5.
- Semen Gresik (Persero) Tbk. “*Why Semen Gresik*” Annual Report 2011
- Van Grembergen, W (2002). *The Balanced Scorecard and IT Governance*, Information Systems Control Journal, Volume 2.
- Weill, Peter. & Ross Jeanne W., (2004). *IT Governance – How To Performers Manage IT Decision Rights for Superior Results*. Harvard Business School Press, Boston.

DAFTAR LAMPIRAN

- Lampiran 1 - Surat Keterangan Riset
 - Panggilan Riset
- Lampiran 2 Daftar Pertanyaan Tata Kelola TI
- Lampiran 3 Daftar Kuesioner Proses TI
- Lampiran 4 - Foundation Model
 - Target Operating Model
 - Target Operating Model – HoldCo vs. OpCo
- Lampiran 5 Market Share Pengadaan Semen Indonesia Tahun 2011

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Hal : Surat Keterangan Riset

Jakarta, 9 Maret 2012

Kepada Yth. : PT SEMEN GRESIK (PERSERO) Tbk
Kepala Pusat Pendidikan dan Pelatihan
Jalan Veteran
Gresik, Jawa Timur

Dengan Hormat,

Saya yang bertandatangan di bawah ini:

Nama : Prof. Dr. Lindawati Gani
Jabatan : Ketua Program
Program Studi MAKSI – PPAk.
Fakultas Ekonomi Universitas Indonesia

menerangkan bahwa:

Nama : Evy Junita
NP M : 0906653503

adalah benar mahasiswa pada Program Studi Magister Akuntansi, Fakultas Ekonomi, Universitas Indonesia yang memerlukan bahan-bahan dan keterangan berupa *data* untuk keperluan penulisan tesis yang mengambil topik "Audit Tata Kelola Teknologi Informasi dengan Pendekatan COBIT 4.1 (Studi Kasus Pada PT Semen Gresik Persero Tbk)" dalam menyelesaikan studinya.

Semua bahan dan keterangan yang diperoleh, dipergunakan semata-mata demi memperluas ilmu pengetahuan dan tidak akan disebarluaskan. Apabila hasil penelitian tersebut akan diterbitkan, terlebih dahulu kami akan meminta persetujuan dari pihak Bapak/ Ibu.

Kami sangat mengharapkan bantuan dari instansi/perusahaan Bapak/ Ibu agar usaha penelitian ini dapat berhasil dengan baik. Atas perhatian dan kerjasamanya, kami ucapkan terima kasih.

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Perihal : Panggilan Riset

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Menunjuk Surat Saudara No : 097/H2.F6.D1.MKS/PDP.04.02/2012 tanggal 09 Maret 2012

Perihal : Permohonan Ijin Riset , dengan ini kami beritahukan bahwa kami dapat menerima Mahasiswa/I, Siswa/I Saudara :

<u>Nama</u>	<u>Nim</u>	<u>Jurusan</u>
1. Evy Junita	0906653503	Magister Akuntansi

Untuk melakukan Riset di PT Semen Gresik (Persero) Tbk, di **Biro Pengelolaan Sistem Informasi SG Pabrik Gresik** dengan ketentuan sbb :

1. Setiap Mahasiswa/I yang melakukan Riset harus diikut sertakan dalam Asuransi Kecelakaan oleh Institusi ybs.
2. Praktek Kerja dilaksanakan mulai tanggal ~~12~~ s/d 30 Maret 2012
3. Perusahaan tidak menyediakan sarana akomodasi (penginapan) & transportasi.
4. Mahasiswa tersebut diatas diharapkan kehadirannya pada :
 - Hari/Tanggal : **Senin, 14 Maret 2012**
 - Pukul : 07.30 WIB sd. Selesai.
 - Tempat : Gedung Diklat PT Semen Gresik (Persero) Tbk, Jl. Veteran Gresik 61122
 - Acara : Pengarahan dari Perusahaan & Penyerahan Perlengk. Administrasi
 - Membawa :
 1. Foto copy Kartu Tanda Pelajar (KTP) sebanyak 1 (satu) lembar.
 2. Polis Asuransi Kecelakaan sebanyak 1 (satu) lembar.
 3. Pas foto berwarna ukuran 2x3 sebanyak 2 (dua) lembar.

Demikian, atas perhatian Saudara kami sampaikan terima kasih.

Gresik, 12 Maret 2012

PT.Semen Gresik (Persero) Tbk.

An. Direksi,

Labiro. Pendidikan & Pelatihan.


 PT SEMEN GRESIK
 (PERSERO) Tbk.
 Ir. Aris Sunarso

DAFTAR PERTANYAAN TATA KELOLA TI

Hari/Tanggal : Selasa-Rabu/ 20-21 Maret 2012
 Waktu : Pukul 09.00 WIB - selesai
 Tempat : Ruang Rapat Lantai 2
 Tim Pengembangan Tekominfo Grup
 Gedung Utama PT Semen Gresik (Persero) Tbk.
 Jl. Veteran Gresik 61122
 Pejabat Yang Diwawancarai : Senior Manager Team Of GropTekominfo Development
 Nama : Ibu Rini Indrawaty, S. Kom

No	Daftar Pertanyaan	Tanggapan		Keterangan
		Ya	Tidak	
1	Apakah perumusan program kerja TI dilakukan secara simultan dan menjadi bagian dalam penyusunan strategi bisnis Perseroan.	v		Penetapan program kerja TI diselaraskan dengan penyusunan strategi bisnis yang dituangkan dalam Rencana Kerja dan Anggaran Perusahaan (RKAP).
2	Apakah terdapat program kerja di bidang TI yang sedang dijalankan Perseroan saat ini.	v		Ada, yaitu program Information Communication and Technology Master Plan (ICTMP) Implementation Semen Gresik Group periode tahun 2008 sd. 2012 dengan proyek inti ICT Program Management & Change Management, Infrastructure, Operation or Process, Applications.
3	Divisi atau unit kerja apa yang bertindak sebagai pengelola program kerja TI tersebut.	v		Divisi Pengelolaan Tekominfo Grup dan Tim Pengembangan Tekominfo Grup yang berada di bawah Direktorat Keuangan.
4	Apakah Perseroan menetapkan time frame pelaksanaan program kerja ICTMP.	v		Perseroan menetapkan jadwal pelaksanaan ICTMP selama 4 tahun mulai 2008 sd. 2012 yang dirinci secara triwulanan.
5	Apakah sudah terdapat proyek TI yang sudah diimplementasikan dalam ICTMP	v		Sampai dengan awal 2012, antara lain Perseroan telah melakukan proses bisnis dengan menggunakan single system ERP SAP dan mampu menyajikan Executive Information System dan beberapa inisiatif lain.

6	Apakah Perseroan telah membentuk struktur organisasi khusus proyek ICTMP	v		Ya, sudah ada
7	Apakah struktur organisasi ICT yang terbentuk saat ini telah dijalankan secara efektif.	v		Sudah dibuat struktur organisasi yang mengakomodasi usulan konsultan, namun belum 100% yang disebabkan oleh masih belum berjalannya dengan baik organisasi holding SGG.
8	Apakah Perseroan telah memiliki SOP sebagai pedoman kebijakan dan prosedur pendukung untuk ICT Master Plan dan telah didokumentasikan dengan baik.		v	SOP disusun secara bertahap untuk memenuhi kebutuhan di internal IT.
9	Apakah Pedoman Pengelolaan Sistem Informasi yang lama mampu mengakomodir tata kelola ICT saat ini.		v	Pedoman yang lama akan dicabut dan disempurnakan dengan Prosedur yang baru.
10	Apakah Pedoman Pengelolaan Sistem Informasi perlu diperbaiki dan ditambahkan dengan tahapan tinjauan pengguna secara berkala.	v		sudah ada.
11	Apakah prosedur pengelolaan mutu ICT sudah dibakukan.		v	Yang lama akan dicabut untuk disempurnakan. Yang baru belum dibakukan, namun draft sudah ada.
12	Apakah prosedur pengelolaan risiko ICT sudah dibakukan (update register risiko, penilaian risiko, respon terhadap risiko ICT).	v		sudah ada risk register yang uptodate, prosedur belum dibakukan.
13	Apakah Perseroan melakukan penilaian atas tata kelola TI yang sedang dijalankan saat ini	v		Ya, penilaian awal melalui self assesment tentang tingkat kematangan tata kelola TI dan ICTMP.
14	Apakah Perseroan memiliki target tingkat kematangan tata kelola ICT saat ini.	v		Sampai dengan akhir implementasi ICTMP pada Desember 2012, diharapkan dapat mencapai target tingkat kematangan level defined process (3).

15	Apakah Perseroan melakukan prosedur software release management.	v		sudah ada tinggal pembakuan.
16	Apakah Perseroan memberikan pembekalan kepada tenaga TI dan para user atas setiap proyek TI	v		Ya, bagian SisFo selalu berkoordinasi dengan bagian Diklat.
17	Apakah Perseroan memiliki mekanisme pelayanan pengaduan atas setiap permasalahan TI dari para user	v		Ya, tersedia service desk sebagai single point of contact. User bisa juga memasukkan permintaan pelayanan menggunakan software manage engine.
18	Apakah Dokumentasi permintaan software aplikasi dari pengguna dan perubahannya telah disusun agar mempermudah pelacakan jika diperlukan.	v		sudah dilakukan.
19	Apakah perubahan terkait pelaksanaan TI dilakukan analisis hasil investasi ICT melalui benefit management.	v		sudah.
20	Apakah jaminan pihak ketiga (vendor TI) perlu dilengkapi dengan response dan resolution time.	v		sudah, dituangkan di kontrak.
21	Apakah pemantauan kinerja dan risiko pihak ketiga penyedia layanan (vendor IT) sudah dilakukan dan dikoordinasikan bersama bagian Pengadaan.	v		sudah.
22	Apakah prosedur IT Change Management perlu dibakukan termasuk perubahan yang bersifat darurat (emergency) dan di-enforce pelaksanaannya.	v		sudah ada tinggal pembakuan.
23	Apakah pengujian keamanan sistem perlu dilakukan secara berkala oleh petugas internal atau pihak independen.	v		sudah namun belum dilakukan secara reguler.

24	Apakah keterlibatan aktif pemilik data perlu ditingkatkan untuk pengamanan data.		v	belum.
25	Apakah Perseroan sudah melakukan pengukuran efektifitas pelaksanaan ICTMP.	v		Tahun ini baru dilakukan audit untuk hasil implementasi ICTMP.
26	Apakah Perseroan sudah menerapkan prosedur personnel clearance saat perekrutan staf IT maupun prosedur penanganan staf IT yang berhenti/mutasi.		v	Personnel clearance dilakukan oleh Kepegawaian pada saat recruitment. Prosedur penanganan staf IT mutasi/berhenti akan dibakukan.
27	Apakah prosedur operasi (SOP) yang mencakup pelaksanaan pemeliharaan TI secara berkala sudah dibakukan.	v		sudah ada, namun akan diperbarui.
28	Apakah Perseroan melakukan survei kepuasan pengguna ICT secara regular.	v		survey sudah ada, namun belum reguler dilakukan.
29	Apakah Perseroan sudah melakukan pengumpulan data pencapaian KPI (Key Performance Indicator) ICT secara independen.		v	belum dilakukan.
30	Apakah Perseroan telah memiliki kamus data yang disusun dan dibakukan untuk aplikasi ERP maupun Non-ERP.		v	belum ada. Untuk ERP tidak perlu karena sudah menggunakan SAP.
31	Apakah Perseroan sudah memiliki skema pengklasifikasian data.		v	belum ada.
32	Apakah dokumen terkait proses SDLC (System Development Life Cycle) telah dipelihara dengan baik.	v		sudah ada di system manage engine.
33	Apakah prosedur pengembangan sistem (SDLC) telah dijalankan secara konsisten.	v		sudah.

Process PO1 Define a Strategic IT Plan

Management of the process of *Define a strategic IT plan* that satisfies the business requirement for IT of sustaining or extending the business strategy and governance requirements while being transparent about benefits, costs and risks is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	IT strategic planning is not performed.	5
2	There is no management awareness that IT strategic planning is needed to support business goals.	5
Total Weight		10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The need for IT strategic planning is known by IT management.	5
2	IT planning is performed on an as-needed basis in response to a specific business requirement.	5
3	IT strategic planning is occasionally discussed at IT management meetings.	5
4	The alignment of business requirements, applications and technology takes place reactively rather than by an organisationwide strategy.	5
5	The strategic risk position is identified informally on a project-by-project basis.	5
Total Weight		25

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	IT strategic planning is shared with business management on an as-needed basis.	5
2	Updating of the IT plans occurs in response to requests by management.	5
3	Strategic decisions are driven on a project-by-project basis without consistency with an overall organisation strategy.	5
4	The risks and user benefits of major strategic decisions are recognised in an intuitive way.	5
Total Weight		20

Maturity Level 3 Defined

Nr	Statement	Weight
1	A policy defines when and how to perform IT strategic planning.	5
2	IT strategic planning follows a structured approach that is documented and known to all staff.	5
3	The IT planning process is reasonably sound and ensures that appropriate planning is likely to be performed.	5
4	However, discretion is given to individual managers with respect to implementation of the process, and there are no procedures to examine the process.	5
5	The overall IT strategy includes a consistent definition of risks that the organisation is willing to take as an innovator or follower.	5
6	The IT financial, technical and human resources strategies increasingly influence the acquisition of new products and technologies.	5
7	IT strategic planning is discussed at business management meetings.	5
Total Weight		35

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	IT strategic planning is standard practice and exceptions would be noticed by management.	5
2	IT strategic planning is a defined management function with senior-level responsibilities.	5
3	Management is able to monitor the IT strategic planning process, make informed decisions based on it and measure its effectiveness.	5
4	Both short-range and long-range IT planning occurs and is cascaded down into the organisation, with updates done as needed.	5
5	The IT strategy and organisationwide strategy are increasingly becoming more co-ordinated by addressing business processes and value-added capabilities and leveraging the use of applications and technologies through business process re-engineering.	5
6	There is a well-defined process for determining the usage of internal and external resources required in system development and operations.	5
Total Weight		30

Maturity Level 5 Optimised

Nr	Statement	Weight
1	IT strategic planning is a documented, living process; is continuously considered in business goal setting; and results in discernible business value through investments in IT.	5
2	Risk and value-added considerations are continuously updated in the IT strategic planning process.	5
3	Realistic long-range IT plans are developed and constantly updated to reflect changing technology and business-related developments.	5
4	Benchmarking against well-understood and reliable industry norms takes place and is integrated with the strategy formulation process.	5
5	The strategic plan includes how new technology developments can drive the creation of new business capabilities and improve the competitive advantage of the organisation.	5
Total Weight		25

Assessment Status Draft

LINK **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

PO1 Define a Strategic IT Plan

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	0.92	1.00	0.92
3	0.90	1.00	0.90
4	0.78	1.00	0.73
5	0.73	1.00	0.73

Maturity Level = 4.32

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00
			x	5.00
			x	5.00
		x		3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	3.30
			x	3.30
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	3.30
			x	5.00
		x		3.30
	x			1.65

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
	x			1.65
		x		3.30
			x	5.00
		x		3.30
			x	5.00

Process PO2 Define the Information Architecture

Management of the process of *Define the Information Architecture* that satisfies the business requirement for IT of being agile in responding to requirements, to provide reliable and consistent information, and to seamlessly integrate applications into business processes is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	There is no awareness of the importance of the information architecture for the organisation.	5
2	The knowledge, expertise and responsibilities necessary to develop this architecture do not exist in the organisation.	5
Total Weight		10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	Management recognises the need for an information architecture.	5
2	Development of some components of an information architecture is occurring on an <i>ad hoc</i> basis.	5
3	The definitions address data, rather than information, and are driven by application software vendor offerings.	5
4	There is inconsistent and sporadic communication of the need for an information architecture.	5
Total Weight		20

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	An information architecture process emerges and similar, though informal and intuitive, procedures are followed by different individuals within the organisation.	5
2	Staff obtain their skills in building the information architecture through hands-on experience and repeated application of techniques.	5
3	Tactical requirements drive the development of information architecture components by individual staff members.	5
Total Weight		15

Maturity Level 3 Defined

Nr	Statement	Weight
1	The importance of the information architecture is understood and accepted, and responsibility for its delivery is assigned and clearly communicated.	5
2	Related procedures, tools and techniques, although not sophisticated, have been standardised and documented and are part of informal training activities.	5
3	Basic information architecture policies have been developed, including some strategic requirements, but compliance with policies, standards and tools is not consistently enforced.	5
4	A formally defined data administration function is in place, setting organisationwide standards, and is beginning to report on the delivery and use of the information architecture.	5
5	Automated tools are beginning to be employed, but the processes and rules used are defined by database software vendor offerings.	5
6	A formal training plan has been developed, but formalised training is still based on individual initiatives.	5
Total Weight		30

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The development and enforcement of the information architecture are fully supported by formal methods and techniques.	5
2	Accountability for the performance of the architecture development process is enforced and success of the information architecture is being measured.	5
3	Supporting automated tools are widespread, but are not yet integrated.	5
4	Basic metrics have been identified and a measurement system is in place.	5
5	The information architecture definition process is proactive and focused on addressing future business needs.	5
6	The data administration organisation is actively involved in all application development efforts, to ensure consistency.	5
7	An automated repository is fully implemented.	5
8	More complex data models are being implemented to leverage the information content of the databases.	5
9	Executive information systems and decision support systems are leveraging the available information.	5
Total Weight		45

Maturity Level 5 Optimised

Nr	Statement	Weight
1	The information architecture is consistently enforced at all levels.	5
2	The value of the information architecture to the business is continually stressed.	5
3	IT personnel have the expertise and skills necessary to develop and maintain a robust and responsive information architecture that reflects all the business requirements.	5
4	The information provided by the information architecture is consistently and extensively applied.	5
5	Extensive use is made of industry good practices in the development and maintenance of the information architecture, including a continuous improvement process.	5
6	The strategy for leveraging information through data warehousing and data mining technologies is defined.	5
7	The information architecture is continuously improving and takes into consideration non-traditional information on processes, organisations and systems.	5
Total Weight		35

Assessment Status Draft

LINK **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

Do you agree...				
			x	5.00

Do you agree...				
			x	5.00
			x	5.00
			x	5.00

Do you agree...				
			x	5.00
			x	5.00
		x		3.30
			x	5.00
			x	5.00
			x	5.00

Do you agree...				
			x	5.00
			x	5.00
		x		3.30
		x		3.30
			x	5.00
			x	5.00
			x	5.00
		x		3.30
			x	5.00

Do you agree...				
			x	5.00
			x	5.00
			x	5.00
		x		3.30
		x		3.30
			x	5.00
			x	5.00

PO2 Define the Information Architecture

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.94	1.00	0.94
4	0.89	1.00	0.89
5	0.90	1.00	0.90

Maturity Level = 4.73

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process PO3 Determine Technological Direction

Management of the process of Determine technological direction that satisfies the business requirement for IT of having stable, cost-effective, integrated and standard application systems, resources and capabilities that meet current and future business requirements is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	There is no awareness of the importance of technology infrastructure planning for the entity.	5
2	The knowledge and expertise necessary to develop such a technology infrastructure plan do not exist.	5
3	There is a lack of understanding that planning for technological change is critical to effectively allocate resources.	5
Total Weight		15

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	Management recognises the need for technology infrastructure planning.	5
2	Technology component developments and emerging technology implementations are ad hoc and isolated.	5
3	There is a reactive and operationally focused approach to infrastructure planning.	5
4	Technology directions are driven by the often contradictory product evolution plans of hardware, systems software and applications software vendors.	5
5	Communication of the potential impact of changes in technology is inconsistent.	5
Total Weight		25

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	The need for and importance of technology planning are communicated.	5
2	Planning is tactical and focused on generating solutions to technical problems, rather than on the use of technology to meet business needs.	5
3	Evaluation of technological changes is left to different individuals who follow intuitive, but similar, processes.	5
4	People obtain their skills in technology planning through hands-on learning and repeated application of techniques.	5
5	Common techniques and standards are emerging for the development of infrastructure components.	5
Total Weight		25

Maturity Level 3 Defined

Nr	Statement	Weight
1	Management is aware of the importance of the technology infrastructure plan.	5
2	The technology infrastructure plan development process is reasonably sound and aligned with the IT strategic plan.	5
3	There is a defined, documented and well-communicated technology infrastructure plan, but it is inconsistently applied.	5
4	The technology infrastructure direction includes an understanding of where the organisation wants to lead or lag in the use of technology, based on risks and alignment with the organisation's strategy.	5
5	Key vendors are selected based on the understanding of their long-term technology and product development plans, consistent with the organisation's direction.	5
6	Formal training and communication of roles and responsibilities exist.	5
Total Weight		30

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	Management ensures the development and maintenance of the technology infrastructure plan.	5
2	IT staff members have the expertise and skills necessary to develop a technology infrastructure plan.	5
3	The potential impact of changing and emerging technologies is taken into account.	5
4	Management can identify deviations from the plan and anticipate problems.	5
5	Responsibility for the development and maintenance of a technology infrastructure plan has been assigned.	5
6	The process of developing the technology infrastructure plan is sophisticated and responsive to change.	5
7	Internal good practices have been introduced into the process.	5
8	The human resources strategy is aligned with the technology direction, to ensure that IT staff members can manage technology changes.	5
9	Migration plans for introducing new technologies are defined.	5
10	Outsourcing and partnering are being leveraged to access necessary expertise and skills.	5
11	Management has analysed the acceptance of risk regarding the lead or lag use of technology in developing new business opportunities or operational efficiencies.	5
Total Weight		55

Maturity Level 5 Optimised

Nr	Statement	Weight
1	A research function exists to review emerging and evolving technologies and benchmark the organisation against industry norms.	5
2	The direction of the technology infrastructure plan is guided by industry and international standards and developments, rather than driven by technology vendors.	5
3	The potential business impact of technological change is reviewed at senior management levels.	5
4	There is formal executive approval of new and changed technological directions.	5
5	The entity has a robust technology infrastructure plan that reflects the business requirements, is responsive and can be modified to reflect changes in the business environment.	5
6	There is a continuous and enforced process in place to improve the technology infrastructure plan.	5
7	Industry good practices are extensively used in determining the technological direction.	5
Total Weight		35

Assessment Status Draft

LINK Back to Assessment Overview

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00
x				0.00

PO3 Determine Technological Direction

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	0.80	1.00	0.80
2	0.86	1.00	0.86
3	0.66	1.00	0.66
4	0.45	1.00	0.45
5	0.81	1.00	0.81

Maturity Level = 3.58

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
			x	3.30
			x	5.00
			x	5.00
		x		3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00
		x		3.30
			x	3.30
			x	5.00
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
			x	5.00
	x			1.65
	x			1.65
			x	5.00
		x		3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
	x			1.65
		x		3.30
	x			1.65
	x			1.65
			x	1.65
			x	1.65
	x			3.30
	x			1.65
		x		3.30
		x		3.30
	x			1.65

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
x				0.00
			x	5.00
			x	5.00
			x	5.00
		x		3.30
			x	5.00
			x	5.00

Process PO4 Define the IT Processes, Organisation and Relationships

Management of the process of *Define the IT processes, organisation and relationships* that satisfies the business requirement for IT of being agile in responding to the business strategy whilst complying with governance requirements and providing defined and competent points of contact is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	The IT organisation is not effectively established to focus on the achievement of business objectives.	5
Total Weight		5

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	IT activities and functions are reactive and inconsistently implemented.	5
2	IT is involved in business projects only in later stages.	5
3	The IT function is considered a support function, without an overall organisation perspective.	5
4	There is an implicit understanding of the need for an IT organisation; however, roles and responsibilities are neither formalised nor enforced.	5
Total Weight		20

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	The IT function is organised to respond tactically, but inconsistently, to customer needs and vendor relationships.	5
2	The need for a structured organisation and vendor management is communicated, but decisions are still dependent on the knowledge and skills of key individuals.	5
3	There is an emergence of common techniques to manage the IT organisation and vendor relationships.	5
Total Weight		15

Maturity Level 3 Defined

Nr	Statement	Weight
1	Defined roles and responsibilities for the IT organisation and third parties exist.	5
2	The IT organisation is developed, documented, communicated and aligned with the IT strategy.	5
3	The internal control environment is defined.	5
4	There is formalisation of relationships with other parties, including steering committees, internal audit and vendor management.	5
5	The IT organisation is functionally complete.	5
6	There are definitions of the functions to be performed by IT personnel and those to be performed by users.	5
7	Essential IT staffing requirements and expertise are defined and satisfied.	5
8	There is a formal definition of relationships with users and third parties.	5
9	The division of roles and responsibilities is defined and implemented.	5
Total Weight		45

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The IT organisation proactively responds to change and includes all roles necessary to meet business requirements.	5
2	IT management, process ownership, accountability and responsibility are defined and balanced.	5
3	Internal good practices have been applied in the organisation of the IT functions.	5
4	IT management has the appropriate expertise and skills to define, implement and monitor the preferred organisation and relationships.	5
5	Measurable metrics to support business objectives and user-defined critical success factors (CSFs) are standardised.	5
6	Skill inventories are available to support project staffing and professional development.	5
7	The balance between the skills and resources available internally and those needed from external organisations is defined and enforced.	5
8	The IT organisational structure appropriately reflects the business needs by providing services aligned with strategic business processes, rather than with isolated technologies.	5
Total Weight		40

Maturity Level 5 Optimised

Nr	Statement	Weight
1	The IT organisational structure is flexible and adaptive.	5
2	Industry good practices are deployed.	5
3	There is extensive use of technology to assist in monitoring the performance of the IT organisation and processes.	5
4	Technology is leveraged in line to support the complexity and geographic distribution of the organisation.	5
5	There is a continuous improvement process in place.	5
Total Weight		25

Assessment Status Draft

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
			x	5.00	
			x	5.00	
			x	5.00	

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
			x	5.00	
			x	5.00	
			x	5.00	

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
			x	5.00	
			x	5.00	
		x		3.30	
			x	5.00	
			x	5.00	
	x			1.65	
		x		3.30	
	x			1.65	

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
	x			1.65	
	x			1.65	
	x			1.65	
	x			1.65	
	x			1.65	
		x		3.30	
		x		3.30	
	x			1.65	

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
			x	5.00	
	x			1.65	
x				0.00	
			x	5.00	
		x		3.30	

PO4 Define the IT Processes, Organisation and Relationships

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.78	1.00	0.78
4	0.41	1.00	0.41
5	0.60	1.00	0.60

Maturity Level = 3.79

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process | **POS Manage the IT Investment**

Management of the process of *Manage the IT Investment* that satisfies the business requirement for IT of continuously and demonstrably improving IT's cost-efficiency and its contribution to business profitability with integrated and standardised services that satisfy end-user expectations is:

Maturity Level | **0 Non-existent**

Nr	Statement	Weight
1	There is no awareness of the importance of IT investment selection and budgeting.	5
2	There is no tracking or monitoring of IT investments and expenditures.	5
Total Weight		10

Maturity Level | **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	The organisation recognises the need for managing the IT investment, but this need is communicated inconsistently.	5
2	Allocation of responsibility for IT investment selection and budget development is done on an ad hoc basis.	5
3	Isolated implementations of IT investment selection and budgeting occur, with informal documentation.	5
4	IT investments are justified on an ad hoc basis.	5
5	Reactive and operationally focused budgeting decisions occur.	5
Total Weight		25

Maturity Level | **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	There is an implicit understanding of the need for IT investment selection and budgeting.	5
2	The need for a selection and budgeting process is communicated.	5
3	Compliance is dependent on the initiative of individuals in the organisation.	5
4	There is an emergence of common techniques to develop components of the IT budget.	5
5	Reactive and tactical budgeting decisions occur.	5
Total Weight		25

Maturity Level | **3 Defined**

Nr	Statement	Weight
1	Policies and processes for investment and budgeting are defined, documented and communicated, and cover key business and technology issues.	5
2	The IT budget is aligned with the strategic IT and business plans.	5
3	The budgeting and IT investment selection processes are formalised, documented and communicated.	5
4	Formal training is emerging but is still based primarily on individual initiatives.	5
5	Formal approval of IT investment selections and budgets is taking place.	5
6	IT staff members have the expertise and skills necessary to develop the IT budget and recommend appropriate IT investments.	5
Total Weight		30

Maturity Level | **4 Managed and Measurable**

Nr	Statement	Weight
1	Responsibility and accountability for investment selection and budgeting are assigned to a specific individual.	5
2	Budget variances are identified and resolved.	5
3	Formal costing analysis is performed, covering direct and indirect costs of existing operations, as well as proposed investments, considering all costs over a total life cycle.	5
4	A proactive and standardised process for budgeting is used.	5
5	The impact of shifting in development and operating costs from hardware and software to systems integration and IT human resources is recognised in the investment plans.	5
6	Benefits and returns are calculated in financial and non-financial terms.	5
Total Weight		30

Maturity Level | **5 Optimised**

Nr	Statement	Weight
1	Industry good practices are used to benchmark costs and identify approaches to increase the effectiveness of investments.	5
2	Analysis of technological developments is used in the investment selection and budgeting process.	5
3	The investment management process is continuously improved based on lessons learned from the analysis of actual investment performance.	5
4	Investment decisions incorporate price/performance improvement trends.	5
5	Funding alternatives are formally investigated and evaluated within the context of the organisation's existing capital structure, using formal evaluation methods.	5
6	There is proactive identification of variances.	5
7	An analysis of the long-term cost and benefits of the total life cycle is incorporated in the investment decisions.	5
Total Weight		35

Assessment Status | **Draft**

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

POS | **Manage the IT Investment**

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.72	1.00	0.72
4	0.33	1.00	0.33
5	0.05	1.00	0.05

Maturity Level = 3.10

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process PO6 Communicate Management Aims and Direction

Management of the process of *Communicate management aims and direction* that satisfies the business requirement for IT of supplying accurate and timely information on current and future IT services and associated risks and responsibilities is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	Management has not established a positive IT control environment.	5
2	There is no recognition of the need to establish a set of policies, plans and procedures, and compliance processes.	5
Total Weight		10

Assessment Status Draft

LINK **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

PO6 Communicate Management Aims and Direction

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.52	1.00	0.52
4	0.33	1.00	0.33
5	0.75	1.00	0.75

Maturity Level = 3.60

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	Management is reactive in addressing the requirements of the information control environment.	5
2	Policies, procedures and standards are developed and communicated on an <i>ad hoc</i> basis as driven by issues.	5
3	The development, communication and compliance processes are informal and inconsistent.	5
Total Weight		15

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00
			x	5.00
			x	5.00

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	The needs and requirements of an effective information control environment are implicitly understood by management, but practices are largely informal.	5
2	The need for control policies, plans and procedures is communicated by management, but development is left to the discretion of individual managers and business areas.	5
3	Quality is recognised as a desirable philosophy to be followed, but practices are left to the discretion of individual managers.	5
4	Training is carried out on an individual, as-required basis.	5
Total Weight		20

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00

Maturity Level 3 Defined

Nr	Statement	Weight
1	A complete information control and quality management environment is developed, documented and communicated by management and includes a framework for policies, plans and procedures.	5
2	The policy development process is structured, maintained and known to staff, and the existing policies, plans and procedures are reasonably sound and cover key issues.	5
3	Management addresses the importance of IT security awareness and initiates awareness programmes.	5
4	Formal training is available to support the information control environment but is not rigorously applied.	5
5	Whilst there is an overall development framework for control policies and procedures, there is inconsistent monitoring of compliance with these policies and procedures.	5
6	There is an overall development framework.	5
7	Techniques for promoting security awareness have been standardised and formalised.	5
Total Weight		35

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
	x			1.65
		x		3.30
x				0.00
		x		3.30
			x	5.00
		x		3.30
	x			1.65

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	Management accepts responsibility for communicating internal control policies and delegates responsibility and allocates sufficient resources to maintain the environment in line with significant changes.	5
2	A positive, proactive information control environment, including a commitment to quality and IT security awareness, is established.	5
3	A complete set of policies, plans and procedures is developed, maintained and communicated and is a composite of internal good practices.	5
4	A framework for rollout and subsequent compliance checks is established.	5
Total Weight		20

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
	x			1.65

Maturity Level 5 Optimised

Nr	Statement	Weight
1	The information control environment is aligned with the strategic management framework and vision and is frequently reviewed, updated and continuously improved.	5
2	Internal and external experts are assigned to ensure that industry good practices are being adopted with respect to control guidance and communication techniques.	5
3	Monitoring, self-assessment and compliance checking are pervasive within the organisation.	5
4	Technology is used to maintain policy and awareness knowledge bases and to optimise communication, using office automation and computer-based training tools.	5
Total Weight		20

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
			x	5.00
		x		3.30
		x		3.30

Process P07 **Manage IT Human Resources**

Management of the process of *Manage IT human resources* that satisfies the business requirement for IT of acquiring competent and motivated people to create and deliver IT services is:

Maturity Level 0 **Non-existent**

Nr	Statement	Weight
1	There is no awareness about the importance of aligning IT human resources management with the technology planning process for the organisation.	5
2	There is no person or group formally responsible for IT human resources management.	5
Total Weight		10

Maturity Level 1 **Initial/Ad Hoc**

Nr	Statement	Weight
1	Management recognises the need for IT human resources management.	5
2	The IT human resources management process is informal and reactive.	5
3	The IT human resources process is operationally focused on the hiring and managing of IT personnel.	5
4	Awareness is developing concerning the impact that rapid business and technology changes and increasingly complex solutions have on the need for new skills and competence levels.	5
Total Weight		20

Maturity Level 2 **Repeatable but Intuitive**

Nr	Statement	Weight
1	There is a tactical approach to hiring and managing IT personnel, driven by project-specific needs, rather than by an understood balance of internal and external availability of skilled staff.	5
2	Informal training takes place for new personnel, who then receive training on an as-required basis.	5
Total Weight		10

Maturity Level 3 **Defined**

Nr	Statement	Weight
1	There is a defined and documented process for managing IT human resources.	5
2	An IT human resources management plan exists.	5
3	There is a strategic approach to hiring and managing IT personnel.	5
4	A formal training plan is designed to meet the needs of IT human resources.	5
5	A rotational programme, designed to expand technical and business management skills, is established.	5
Total Weight		25

Maturity Level 4 **Managed and Measurable**

Nr	Statement	Weight
1	Responsibility for the development and maintenance of an IT human resources management plan is assigned to a specific individual or group with the requisite expertise and skills necessary to develop and maintain the plan.	5
2	The process of developing and managing the IT human resources management plan is responsive to change.	5
3	Standardised measures exist in the organisation to allow it to identify deviations from the IT human resources management plan, with specific emphasis on managing IT personnel growth and turnover.	5
4	Compensation and performance reviews are being established and compared to other IT organisations and industry good practice.	5
5	IT human resources management is proactive, taking into account career path development.	5
Total Weight		25

Maturity Level 5 **Optimised**

Nr	Statement	Weight
1	The IT human resources management plan is continuously being updated to meet changing business requirements.	5
2	IT human resources management is integrated with technology planning, ensuring optimum development and use of available IT skills.	5
3	IT human resources management is integrated with and responsive to the entity's strategic direction.	5
4	Components of IT human resources management are consistent with industry good practices, such as compensation, performance reviews, participation in industry forums, transfer of knowledge, training and mentoring.	5
5	Training programmes are developed for all new technology standards and products prior to their deployment in the organisation.	5
Total Weight		25

Assessment Status Draft

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Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
x				0.00
x				0.00

P07 Manage IT Human Resources

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	0.92	1.00	0.92
2	1.00	1.00	1.00
3	0.80	1.00	0.80
4	0.40	1.00	0.40
5	0.40	1.00	0.40

Maturity Level = 3.51

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
			x	5.00
			x	5.00
			x	5.00
		x		3.30

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
			x	5.00
			x	5.00

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
			x	5.00
			x	5.00
		x		3.30
			x	5.00
	x			1.65

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
			x	5.00
		x		3.30
	x			1.65
x				0.00
x				0.00

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
	x			1.65
		x		3.30

Process PO8 Manage Quality

Management of the process of *Manage quality* that satisfies the business requirement for IT of ensuring continuous and measurable improvement of the quality of IT services delivered is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	The organisation lacks a QMS planning process and a system development life cycle (SDLC) methodology.	5
2	Senior management and IT staff members do not recognise that a quality programme is necessary.	5
3	Projects and operations are never reviewed for quality.	5
Total Weight		15

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	There is a management awareness of the need for a QMS.	5
2	The QMS is driven by individuals where it takes place.	5
3	Management makes informal judgements on quality.	5
Total Weight		15

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	A programme is being established to define and monitor QMS activities within IT.	5
2	QMS activities that do occur are focused on IT project- and process-oriented initiatives, not on organisationwide processes.	5
Total Weight		10

Maturity Level 3 Defined

Nr	Statement	Weight
1	A defined QMS process is communicated throughout the enterprise by management and involves IT and end-user management.	5
2	An education and training programme is emerging to teach all levels of the organisation about quality.	5
3	Basic quality expectations are defined and are shared amongst projects and within the IT organisation.	5
4	Common tools and practices for quality management are emerging.	5
5	Quality satisfaction surveys are planned and occasionally conducted.	5
Total Weight		25

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The QMS is addressed in all processes, including processes with reliance on third parties.	5
2	A standardised knowledge base is being established for quality metrics.	5
3	Cost-benefit analysis methods are used to justify QMS initiatives.	5
4	Benchmarking against the industry and competitors is emerging.	5
5	An education and training programme is instituted to teach all levels of the organisation about quality.	5
6	Tools and practices are being standardised, and root cause analysis is periodically applied.	5
7	Quality satisfaction surveys are consistently conducted.	5
8	A standardised programme for measuring quality is in place and well structured.	5
9	IT management is building a knowledge base for quality metrics.	5
Total Weight		45

Maturity Level 5 Optimised

Nr	Statement	Weight
1	The QMS is integrated and enforced in all IT activities.	5
2	QMS processes are flexible and adaptable to changes in the IT environment.	5
3	The knowledge base for quality metrics is enhanced with external good practices.	5
4	Benchmarking against external standards is routinely performed.	5
5	Quality satisfaction surveying is an ongoing process and leads to root cause analysis and improvement actions.	5
6	There is formal assurance on the level of the quality management process.	5
Total Weight		30

Assessment Status Draft

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00
x				0.00

Do you agree...				Relative Importance
		x		
			x	5.00
			x	5.00

Do you agree...				Relative Importance
		x		
			x	5.00

Do you agree...				Relative Importance
	x			
x				0.00
			x	5.00
			x	5.00
x				0.00

Do you agree...				Relative Importance
x				
x				0.00
		x		1.65
			x	3.30
x				0.00

Do you agree...				Relative Importance
x				
x				0.00

PO8 Manage Quality

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	0.83	1.00	0.83
3	0.47	1.00	0.47
4	0.11	1.00	0.11
5	0.00	1.00	0.00

Maturity Level = 2.41

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process | **PO9 Assess and Manage IT Risks**

Management of the process of *Assess and manage IT risks* that satisfies the business requirement for IT of analysing and communicating IT risks and their potential impact on business processes and goals is:

Maturity Level | **0 Non-existent**

Nr	Statement	Weight
1	Risk assessment for processes and business decisions does not occur.	5
2	The organisation does not consider the business impacts associated with security vulnerabilities and development project uncertainties.	5
3	Risk management is not identified as relevant to acquiring IT solutions and delivering IT services.	5

Total Weight | 15

Maturity Level | **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	IT risks are considered in an <i>ad hoc</i> manner.	5
2	Informal assessments of project risk take place as determined by each project.	5
3	Risk assessments are sometimes identified in a project plan but are rarely assigned to specific managers.	5
4	Specific IT-related risks, such as security, availability and integrity, are occasionally considered on a project-by-project basis.	5
5	IT-related risks affecting day-to-day operations are seldom discussed at management meetings.	5
6	Where risks have been considered, mitigation is inconsistent.	5
7	There is an emerging understanding that IT risks are important and need to be considered.	5

Total Weight | 35

Maturity Level | **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	A developing risk assessment approach exists and is implemented at the discretion of the project managers.	5
2	The risk management is usually at a high level and is typically applied only to major projects or in response to problems.	5
3	Risk mitigation processes are starting to be implemented where risks are identified.	5

Total Weight | 15

Maturity Level | **3 Defined**

Nr	Statement	Weight
1	An organisationwide risk management policy defines when and how to conduct risk assessments.	5
2	Risk management follows a defined process that is documented.	5
3	Risk management training is available to all staff members.	5
4	Decisions to follow the risk management process and receive training are left to the individual's discretion.	5
5	The methodology for the assessment of risk is convincing and sound and ensures that key risks to the business are identified.	5
6	A process to mitigate key risks is usually instituted once the risks are identified.	5
7	Job descriptions consider risk management responsibilities.	5

Total Weight | 35

Maturity Level | **4 Managed and Measurable**

Nr	Statement	Weight
1	The assessment and management of risk are standard procedures.	5
2	Exceptions to the risk management process are reported to IT management.	5
3	IT risk management is a senior management-level responsibility.	5
4	Risk is assessed and mitigated at the individual project level and also regularly with regard to the overall IT operation.	5
5	Management is advised on changes in the business and IT environment that could significantly affect the IT-related risk scenarios.	5
6	Management is able to monitor the risk position and make informed decisions regarding the exposure it is willing to accept.	5
7	All identified risks have a nominated owner, and senior management and IT management determine the levels of risk that the organisation will tolerate.	5
8	IT management develops standard measures for assessing risk and defining risk/return ratios.	5
9	Management budgets for an operational risk management project to reassess risks on a regular basis.	5
10	A risk management database is established, and part of the risk management processes is beginning to be automated.	5
11	IT management considers risk mitigation strategies.	5

Total Weight | 55

Maturity Level | **5 Optimised**

Nr	Statement	Weight
1	Risk management develops to the stage where a structured, organisationwide process is enforced and well managed.	5
2	Good practices are applied across the entire organisation.	5
3	The capture, analysis and reporting of risk management data are highly automated.	5
4	Guidance is drawn from leaders in the field, and the IT organisation takes part in peer groups to exchange experiences.	5
5	Risk management is truly integrated into all business and IT operations, is well accepted and extensively involves the users of IT services.	5
6	Management detects and acts when major IT operational and investment decisions are made without consideration of the risk management plan.	5
7	Management continually assesses risk mitigation strategies.	5

Total Weight | 35

Assessment Status | **Draft**

LINK | [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00
x				0.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
			x	5.00
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
		x		3.30
		x		3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
		x		3.30
	x			1.65
		x		1.65
			x	3.30
			x	3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
	x			1.65
		x		3.30
	x			1.65
	x			1.65
x				0.00
	x			1.65
			x	5.00
		x		3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
	x			1.65
	x			1.65
x				0.00
	x			1.65
		x		3.30
x				0.00
x				0.00

PO9 Assess and Manage IT Risks

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	0.76	1.00	0.76
2	0.66	1.00	0.66
3	0.47	1.00	0.47
4	0.42	1.00	0.42
5	0.24	1.00	0.24

Maturity Level = **2.55**

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process PO10 Manage Projects

Management of the process of *Manage projects* that satisfies the business requirement for IT of ensuring the delivery of project results within agreed-upon time frames, budget and quality is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	Project management techniques are not used and the organisation does not consider business impacts associated with project mismanagement and development project failures.	5
Total Weight		5

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The use of project management techniques and approaches within IT is a decision left to individual IT managers.	5
2	There is a lack of management commitment to project ownership and project management.	5
3	Critical decisions on project management are made without user management or customer input.	5
4	There is little or no customer and user involvement in defining IT projects.	5
5	There is no clear organisation within IT for the management of projects.	5
6	Roles and responsibilities for the management of projects are not defined.	5
7	Projects, schedules and milestones are poorly defined, if at all.	5
8	Project staff time and expenses are not tracked and compared to budgets.	5
Total Weight		40

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	Senior management gains and communicates an awareness of the need for IT project management.	5
2	The organisation is in the process of developing and utilising some techniques and methods from project to project.	5
3	IT projects have informally defined business and technical objectives.	5
4	There is limited stakeholder involvement in IT project management.	5
5	Initial guidelines are developed for many aspects of project management.	5
6	Application of project management guidelines is left to the discretion of the individual project manager.	5
Total Weight		30

Maturity Level 3 Defined

Nr	Statement	Weight
1	The IT project management process and methodology are established and communicated.	5
2	IT projects are defined with appropriate business and technical objectives.	5
3	Senior IT and business management are beginning to be committed and involved in the management of IT projects.	5
4	A project management office is established within IT, with initial roles and responsibilities defined.	5
5	IT projects are monitored, with defined and updated milestones, schedules, budget and performance measurements.	5
6	Project management training is available and is primarily a result of individual staff initiatives.	5
7	QA procedures and post-system implementation activities are defined, but are not broadly applied by IT managers.	5
8	Projects are beginning to be managed as portfolios.	5
Total Weight		40

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	Management requires formal and standardised project metrics and lessons learned to be reviewed following project completion.	5
2	Project management is measured and evaluated throughout the organisation and not just within IT.	5
3	Enhancements to the project management process are formalised and communicated with project team members trained on enhancements.	5
4	IT management implements a project organisation structure with documented roles, responsibilities and staff performance criteria.	5
5	Criteria for evaluating success at each milestone are established.	5
6	Value and risk are measured and managed prior to, during and after the completion of projects.	5
7	Projects increasingly address organisation goals, rather than only IT-specific ones.	5
8	There is strong and active project support from senior management sponsors as well as stakeholders.	5
9	Relevant project management training is planned for staff in the project management office and across the IT function.	5
Total Weight		45

Maturity Level 5 Optimised

Nr	Statement	Weight
1	A proven, full life cycle project and programme methodology is implemented, enforced and integrated into the culture of the entire organisation.	5
2	An ongoing initiative to identify and institutionalise best project management practices is implemented.	5
3	An IT strategy for sourcing development and operational projects is defined and implemented.	5
4	An integrated project management office is responsible for projects and programmes from inception to post-implementation.	5
5	Organisationwide planning of programmes and projects ensures that user and IT resources are best utilised to support strategic initiatives.	5
Total Weight		25

Assessment Status Draft

LINK **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				
Do you agree...				0.00

PO10 Manage Projects

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	0.61	1.00	0.61
3	0.37	1.00	0.37
4	0.70	1.00	0.70
5	0.46	1.00	0.46

Maturity Level = 3.14

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

				Relative Importance
			x	
Do you agree...				5.00
			x	5.00

				Relative Importance
			x	
Do you agree...				3.30
			x	3.30
		x		1.65
		x		1.65
			x	3.30
			x	5.00

				Relative Importance
			x	
Do you agree...				3.30
			x	0.00
			x	3.30
			x	0.00
			x	0.00
			x	3.30
			x	1.65
			x	3.30

				Relative Importance
			x	
Do you agree...				3.30
			x	5.00
			x	3.30
			x	5.00
			x	1.65
			x	3.30
			x	3.30
			x	3.30

				Relative Importance
			x	
Do you agree...				1.65
			x	3.30
			x	3.30
			x	3.30
			x	0.00

Process | **AI1 Identify Automated Solutions**

Management of the process of *Identify automated solutions* that satisfies the business requirement for IT of translating business functional and control requirements into an effective and efficient design of automated solutions is:

Maturity Level | **0 Non-existent**

Nr	Statement	Weight
1	The organisation does not require the identification of functional and operational requirements for development, implementation or modification of solutions, such as system, service, infrastructure, software and data.	5
2	The organisation does not maintain an awareness of available technology solutions potentially relevant to its business.	5

Total Weight | 10

Maturity Level | **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	There is an awareness of the need to define requirements and identify technology solutions. Individual groups meet to discuss needs informally, and requirements are sometimes documented.	5
2	Solutions are identified by individuals based on limited market awareness or in response to vendor offerings.	5
3	There is minimal structured research or analysis of available technology.	5

Total Weight | 15

Maturity Level | **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	Some intuitive approaches to identify IT solutions exist and vary across the business.	5
2	Solutions are identified informally based on the internal experience and knowledge of the IT function.	5
3	The success of each project depends on the expertise of a few key individuals.	5
4	The quality of documentation and decision making varies considerably.	5
5	Unstructured approaches are used to define requirements and identify technology solutions.	5

Total Weight | 25

Maturity Level | **3 Defined**

Nr	Statement	Weight
1	Clear and structured approaches in determining IT solutions exist.	5
2	The approach to the determination of IT solutions requires the consideration of alternatives evaluated against business or user requirements, technological opportunities, economic feasibility, risk assessments, and other factors.	5
3	The process for determining IT solutions is applied for some projects based on factors such as the decisions made by the individual staff members involved, the amount of management time committed, and the size and priority of the original business requirement.	5
4	Structured approaches are used to define requirements and identify IT solutions.	5

Total Weight | 20

Maturity Level | **4 Managed and Measurable**

Nr	Statement	Weight
1	An established methodology for identification and assessment of IT solutions exists and is used for most projects.	5
2	Project documentation is of good quality, and each stage is properly approved.	5
3	Requirements are well articulated and in accordance with predefined structures.	5
4	Solution alternatives are considered, including the analysis of costs and benefits.	5
5	The methodology is clear, defined, generally understood and measurable.	5
6	There is a clearly defined interface between IT management and business in the identification and assessment of IT solutions.	5

Total Weight | 30

Maturity Level | **5 Optimised**

Nr	Statement	Weight
1	The methodology for identification and assessment of IT solutions is subjected to continuous improvement.	5
2	The acquisition and implementation methodology has the flexibility for large- and small-scale projects.	5
3	The methodology is supported by internal and external knowledge databases containing reference materials on technology solutions.	5
4	The methodology itself produces documentation in a predefined structure that makes production and maintenance efficient.	5
5	New opportunities are often identified to utilise technology to gain competitive advantage, influence business process re-engineering and improve overall efficiency.	5
6	Management detects and acts if IT solutions are approved without consideration of alternative technologies or business functional requirements.	5

Total Weight | 30

Assessment Status | **Draft**

LINK | **Back to Assessment Overview**

	Not at all	A little	To some degree	Completely	Relative Importance
	x				0.00
	x				0.00

AI1 Identify Automated Solutions

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.83	1.00	0.83
4	0.66	1.00	0.66
5	0.50	1.00	0.50

Maturity Level = **3.99**

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...					
				x	5.00
				x	5.00
				x	5.00

Do you agree...					
				x	5.00
				x	5.00
				x	5.00
				x	5.00
				x	5.00

Do you agree...					
			x	x	3.30
				x	5.00
				x	5.00
			x		3.30

Do you agree...					
			x		3.30
			x		3.30
			x		3.30
			x		3.30
			x		3.30
			x		3.30

Do you agree...					
			x		3.30
			x		3.30
			x		3.30
		x			1.65
			x		3.30
x					0.00

Process	A12 Acquire and Maintain Application Software
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Management of the process of *Acquire and maintain application software* that satisfies the business requirement for IT of aligning available applications with business requirements, and doing so in a timely manner and at a reasonable cost is:

Maturity Level	0 Non-existent
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Nr	Statement	Weight
1	There is no process for designing and specifying applications.	5
2	Typically, applications are obtained based on vendor-driven offerings, brand recognition or IT staff familiarity with specific products, with little or no consideration of actual requirements.	5

Total Weight 10

Maturity Level	1 Initial/Ad Hoc
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Nr	Statement	Weight
1	There is an awareness that a process for acquiring and maintaining applications is required.	5
2	Approaches to acquiring and maintaining application software vary from project to project.	5
3	Some individual solutions to particular business requirements are likely to have been acquired independently, resulting in inefficiencies with maintenance and support.	5

Total Weight 15

Maturity Level	2 Repeatable but Intuitive
----------------	-----------------------------------

Nr	Statement	Weight
1	There are different, but similar, processes for acquiring and maintaining applications based on the expertise within the IT function.	5
2	The success rate with applications depends greatly on the in-house skills and experience levels within IT.	5
3	Maintenance is usually problematic and suffers when internal knowledge is lost from the organisation.	5
4	There is little consideration of application security and availability in the design or acquisition of application software.	5

Total Weight 20

Maturity Level	3 Defined
----------------	------------------

Nr	Statement	Weight
1	A clear, defined and generally understood process exists for the acquisition and maintenance of application software.	5
2	This process is aligned with IT and business strategy.	5
3	An attempt is made to apply the documented processes consistently across different applications and projects.	5
4	The methodologies are generally inflexible and difficult to apply in all cases, so steps are likely to be bypassed.	5
5	Maintenance activities are planned, scheduled and co-ordinated.	5

Total Weight 25

Maturity Level	4 Managed and Measurable
----------------	---------------------------------

Nr	Statement	Weight
1	There is a formal and well-understood methodology that includes a design and specification process, criteria for acquisition, a process for testing and requirements for documentation.	5
2	Documented and agreed-upon approval mechanisms exist to ensure that all steps are followed and exceptions are authorised.	5
3	Practices and procedures evolve and are well suited to the organisation, used by all staff and applicable to most application requirements.	5

Total Weight 15

Maturity Level	5 Optimised
----------------	--------------------

Nr	Statement	Weight
1	Application software acquisition and maintenance practices are aligned with the defined process.	5
2	The approach is component-based, with predefined, standardised applications matched to business needs.	5
3	The approach is enterprisewide.	5
4	The acquisition and maintenance methodology is well advanced and enables rapid deployment, allowing for high responsiveness and flexibility in responding to changing business requirements.	5
5	The application software acquisition and implementation methodology is subjected to continuous improvement and is supported by internal and external knowledge databases containing reference materials and good practices.	5
6	The methodology creates documentation in a predefined structure that makes production and maintenance efficient.	5

Total Weight 30

Assessment Status	Draft
-------------------	-------

LINK [Back to Assessment Overview](#)

Net at all	A little	To some degree	Completely	Relative Importance
x				0.00
				0.00

A12 Acquire and Maintain Application Software			
------------------------------------------------------	--	--	--

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	1.00	1.00	1.00
4	0.55	1.00	0.55
5	0.78	1.00	0.78

Maturity Level = **4.33**

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
			x	5.00
			x	5.00
			x	5.00

Do you agree...				Relative Importance
			x	5.00

Do you agree...				Relative Importance
			x	5.00

Do you agree...				Relative Importance
		x		3.30
		x		3.30
	x			1.65

Do you agree...				Relative Importance
			x	5.00
			x	5.00
			x	5.00
		x		3.30
	x			1.65
		x		3.30

Process AI3 Acquire and Maintain Technology Infrastructure

Management of the process of *Acquire and maintain technology infrastructure* that satisfies the business requirement for IT of acquiring and maintaining an integrated and standardised IT infrastructure is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	Managing the technology infrastructure is not recognised as a sufficiently important topic to be addressed.	5
Total Weight		5

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	There are changes made to infrastructure for every new application, without any overall plan.	5
2	Although there is an awareness that the IT infrastructure is important, there is no consistent overall approach.	5
3	Maintenance activity reacts to short-term needs.	5
4	The production environment is the test environment.	5
Total Weight		20

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	There is a consistency amongst tactical approaches when acquiring and maintaining the IT infrastructure.	5
2	Acquisition and maintenance of IT infrastructure are not based on any defined strategy and do not consider the needs of the business applications that must be supported.	5
3	There is an understanding that the IT infrastructure is important, supported by some formal practices.	5
4	Some maintenance is scheduled, but it is not fully scheduled and co-ordinated.	5
5	For some environments, a separate test environment exists.	5
Total Weight		25

Maturity Level 3 Defined

Nr	Statement	Weight
1	A clear, defined and generally understood process exists for acquiring and maintaining IT infrastructure.	5
2	The process supports the needs of critical business applications and is aligned to IT and business strategy, but it is not consistently applied.	5
3	Maintenance is planned, scheduled and co-ordinated.	5
4	There are separate environments for test and production.	5
Total Weight		20

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The acquisition and maintenance process for technology infrastructure has developed to the point where it works well for most situations, is followed consistently and is focused on reusability.	5
2	The IT infrastructure adequately supports the business applications.	5
3	The process is well organised and proactive.	5
4	The cost and lead time to achieve the expected level of scalability, flexibility and integration are partially optimised.	5
Total Weight		20

Maturity Level 5 Optimised

Nr	Statement	Weight
1	The acquisition and maintenance process for technology infrastructure is proactive and closely aligned with critical business applications and the technology architecture.	5
2	Good practices regarding technology solutions are followed, and the organisation is aware of the latest platform developments and management tools.	5
3	Costs are reduced by rationalising and standardising infrastructure components and by using automation.	5
4	A high level of technical awareness can identify optimum ways to proactively improve performance, including consideration of outsourcing options.	5
5	The IT infrastructure is seen as the key enabler to leveraging the use of IT.	5
Total Weight		25

Assessment Status Draft

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00

Do you agree...				Relative Importance
			x	5.00

Do you agree...				Relative Importance
		x		3.30
			x	5.00

Do you agree...				Relative Importance
			x	5.00
		x		3.30
			x	3.30
		x		3.30

Do you agree...				Relative Importance
		x		3.30
			x	5.00
			x	5.00
		x		3.30

Do you agree...				Relative Importance
		x		3.30
			x	5.00
	x			1.65
		x		3.30
			x	5.00

AI3 Acquire and Maintain Technology Infrastructure

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	0.93	1.00	0.93
3	0.75	1.00	0.75
4	0.83	1.00	0.83
5	0.73	1.00	0.73

Maturity Level = 4.24

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process A14 Enable Operation and Use

Management of the process of *Enable operation and use* that satisfies the business requirement for IT of ensuring satisfaction of end users with service offerings and service levels and seamlessly integrating applications and technology solutions into business processes is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	There is no process in place with regard to the production of user documentation, operations manuals and training material.	5
2	The only materials that exist are those supplied with purchased products.	5
Total Weight		10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	There is awareness that process documentation is needed.	5
2	Documentation is occasionally produced and is inconsistently distributed to limited groups.	5
3	Much of the documentation and many of the procedures are out of date.	5
4	Training materials tend to be one-off schemes with variable quality.	5
5	There is virtually no integration of procedures across different systems and business units.	5
6	There is no input from business units in the design of training programmes.	5
Total Weight		30

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	Similar approaches are used to produce procedures and documentation, but they are not based on a structured approach or framework.	5
2	There is no uniform approach to the development of user and operating procedures.	5
3	Training materials are produced by individuals or project teams, and quality depends on the individuals involved.	5
4	Procedures and quality of user support vary from poor to very good, with very little consistency and integration across the organisation.	5
5	Training programmes for the business and users are provided or facilitated, but there is no overall plan for training rollout or delivery.	5
Total Weight		25

Maturity Level 3 Defined

Nr	Statement	Weight
1	There is a clearly defined, accepted and understood framework for user documentation, operations manuals and training materials.	5
2	Procedures are stored and maintained in a formal library and can be accessed by anyone who needs to know them.	5
3	Corrections to documentation and procedures are made on a reactive basis.	5
4	Procedures are available offline and can be accessed and maintained in case of disaster.	5
5	A process exists that specifies procedure updates and training materials to be an explicit deliverable of a change project.	5
6	Despite the existence of defined approaches, the actual content varies because there is no control to enforce compliance with standards.	5
7	Users are informally involved in the process.	5
8	Automated tools are increasingly used in the generation and distribution of procedures. Business and user training is planned and scheduled.	5
Total Weight		40

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	There is a defined framework for maintaining procedures and training materials that has IT management support.	5
2	The approach taken for maintaining procedures and training manuals covers all systems and business units, so that processes can be viewed from a business perspective.	5
3	Procedures and training materials are integrated to include interdependencies and interfaces.	5
4	Controls exist to ensure adherence to standards, and procedures are developed and maintained for all processes.	5
5	Business and user feedback on documentation and training is collected and assessed as part of a continuous improvement process.	5
6	Documentation and training materials are usually at a predictable and good level of reliability and availability.	5
7	An emerging process for using automated procedure documentation and management is implemented.	5
8	Automated procedure development is increasingly integrated with application system development facilitating consistency and user access.	5
9	Business and user training is responsive to the needs of the business.	5
10	IT management is developing metrics for the development and delivery of documentation, training materials and training programmes.	5
Total Weight		45

Maturity Level 5 Optimised

Nr	Statement	Weight
1	The process for user and operational documentation is constantly improved through the adoption of new tools or methods.	5
2	The procedure materials and training materials are treated as a constantly evolving knowledge base that is maintained electronically using up-to-date knowledge management, workflow and distribution technologies, making it accessible and easy to maintain.	5
3	Documentation and training material is updated to reflect organisational, operational and software changes.	5
4	The development of documentation and training materials and the delivery of training programmes are fully integrated with the business and business process definitions, thus supporting organisation-wide requirements, rather than only IT-oriented procedures.	5
Total Weight		5

Assessment Status Draft

LINK Back to Assessment Overview

Not at all	A little	To some degree	Completely	Relative Importance
x				0,00
x				0,00

Do you agree...				Relative Importance
			x	5,00

Do you agree...				Relative Importance
			x	5,00

Do you agree...				Relative Importance
			x	3,30
			x	5,00

Do you agree...				Relative Importance
			x	0,00
			x	3,30
			x	1,65
			x	0,00
			x	5,00
			x	0,00

Do you agree...				Relative Importance
			x	0,00
			x	0,00
			x	3,30
			x	1,65

A14 Enable Operation and Use

Level	Compliance	Contribution	Value
0	0,00	0,00	0,00
1	1,00	1,00	1,00
2	1,00	1,00	1,00
3	0,96	1,00	0,96
4	0,51	1,00	0,51
5	0,50	1,00	0,50

Maturity Level = 3,97

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process AIS Procure IT Resources

Management of the process of Procure IT resources that satisfies the business requirement for IT of improving IT's cost-efficiency and its contribution to business profitability is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	There is no defined IT resource procurement process in place.	5
2	The organisation does not recognise the need for clear procurement policies and procedures to ensure that all IT resources are available in a timely and cost-efficient manner.	5

Total Weight 10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The organisation recognises the need to have documented policies and procedures that link IT acquisition to the business organisation's overall procurement process.	5
2	Contracts for the acquisition of IT resources are developed and managed by project managers and other individuals exercising their professional judgement rather than as a result of formal procedures and policies.	5
3	There is only an ad hoc relationship between corporate acquisition and contract management processes and IT.	5
4	Contracts for acquisition are managed at the conclusion of projects rather than on a continuous basis.	5

Total Weight 20

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	There is organisational awareness of the need to have basic policies and procedures for IT acquisition.	5
2	Policies and procedures are partially integrated with the business organisation's overall procurement process.	5
3	Procurement processes are mostly utilised for large and highly visible projects.	5
4	Responsibilities and accountabilities for IT procurement and contract management are determined by the individual contract manager's experience.	5
5	The importance of supplier management and relationship management is recognised; however, it is addressed based on individual initiative.	5
6	Contract processes are mostly utilised by large or highly visible projects.	5

Total Weight 30

Maturity Level 3 Defined

Nr	Statement	Weight
1	Management institutes policies and procedures for IT acquisition.	5
2	Policies and procedures are guided by the business organisation's overall procurement process.	5
3	IT acquisition is largely integrated with overall business procurement systems.	5
4	IT standards for the acquisition of IT resources exist.	5
5	Suppliers of IT resources are integrated into the organisation's project management mechanisms from a contract management perspective.	5
6	IT management communicates the need for appropriate acquisitions and contract management throughout the IT function.	5

Total Weight 30

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	IT acquisition is fully integrated with overall business procurement systems.	5
2	IT standards for the acquisition of IT resources are used for all procurements.	5
3	Measurements on contract and procurement management are taken relevant to the business cases for IT acquisition.	5
4	Reporting on IT acquisition activity that supports business objectives is available.	5
5	Management is usually aware of exceptions to the policies and procedures for IT acquisition.	5
6	Strategic management of relationships is developing.	5
7	IT management enforces the use of the acquisition and contract management process for all acquisitions by reviewing performance measurement.	5

Total Weight 35

Maturity Level 5 Optimised

Nr	Statement	Weight
1	Management institutes resources' procurement through processes for IT acquisition.	5
2	Management enforces compliance with policies and procedures for IT acquisition.	5
3	Measurements on contract and procurement management are taken that are relevant to the business cases for IT acquisitions.	5
4	Good relationships are established over time with most suppliers and partners, and the quality of relationships is measured and monitored.	5
5	Relationships are managed strategically.	5
6	IT standards, policies and procedures for the acquisition of IT resources are managed strategically and respond to measurement of the process.	5
7	IT management communicates the strategic importance of appropriate acquisition and contract management throughout the IT function.	5

Total Weight 35

Assessment Status Draft

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
				0.00
x				0.00

AIS Procure IT Resources

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.89	1.00	0.89
4	0.71	1.00	0.71
5	0.57	1.00	0.57

Maturity Level = 4.17

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
			x	5.00
		x		5.00
		x		5.00
		x		5.00

Do you agree...				Relative Importance
			x	5.00
			x	5.00
		x		5.00

Do you agree...				Relative Importance
			x	5.00
			x	5.00
		x		5.00
	x			1.65
		x		5.00
			x	5.00

Do you agree...				Relative Importance
			x	5.00
	x			1.65
	x			1.65
		x		3.30
			x	5.00
			x	5.00
		x		3.30

Do you agree...				Relative Importance
			x	5.00
			x	5.00
	x			1.65
		x		3.30
			x	5.00
x				0.00
		x		3.30
	x			1.65

Process | **AIG Manage Changes**

Management of the process of *Manage changes* that satisfies the business requirement for IT of responding to business requirements in alignment with the business strategy, whilst reducing solution and service delivery defects and rework is:

Maturity Level | **0 Non-existent**

Nr	Statement	Weight
1	There is no defined change management process, and changes can be made with virtually no control.	5
2	There is no awareness that change can be disruptive for IT and business operations, and no awareness of the benefits of good change management.	5

Total Weight: 10

Maturity Level | **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	It is recognised that changes should be managed and controlled.	5
2	Practices vary, and it is likely that unauthorised changes take place.	5
3	There is poor or non-existent documentation of change, and configuration documentation is incomplete and unreliable.	5
4	Errors are likely to occur together with interruptions to the production environment caused by poor change management.	5

Total Weight: 20

Maturity Level | **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	There is an informal change management process in place and most changes follow this approach; however, it is unstructured, rudimentary and prone to error.	5
2	Configuration documentation accuracy is inconsistent, and only limited planning and impact assessment take place prior to a change.	5

Total Weight: 10

Maturity Level | **3 Defined**

Nr	Statement	Weight
1	There is a defined formal change management process in place, including categorisation, prioritisation, emergency procedures, change authorisation and release management, and compliance is emerging.	5
2	Workarounds take place, and processes are often bypassed.	5
3	Errors may occur and unauthorised changes occasionally occur.	5
4	The analysis of the impact of IT changes on business operations is becoming formalised, to support planned rollouts of new applications and technologies.	5

Total Weight: 20

Maturity Level | **4 Managed and Measurable**

Nr	Statement	Weight
1	The change management process is well developed and consistently followed for all changes, and management is confident that there are minimal exceptions.	5
2	The process is efficient and effective, but relies on considerable manual procedures and controls to ensure that quality is achieved.	5
3	All changes are subject to thorough planning and impact assessment to minimise the likelihood of post-production problems.	5
4	An approval process for changes is in place.	5
5	Change management documentation is current and correct, with changes formally tracked.	5
6	Configuration documentation is generally accurate.	5
7	IT change management planning and implementation are becoming more integrated with changes in the business processes, to ensure that training, organisational changes and business continuity issues are addressed.	5
8	There is increased co-ordination between IT change management and business process redesign.	5
9	There is a consistent process for monitoring the quality and performance of the change management process.	5

Total Weight: 45

Maturity Level | **5 Optimised**

Nr	Statement	Weight
1	The change management process is regularly reviewed and updated to stay in line with good practices.	5
2	The review process reflects the outcome of monitoring.	5
3	Configuration information is computer-based and provides version control.	5
4	Tracking of changes is sophisticated and includes tools to detect unauthorised and unlicensed software.	5
5	IT change management is integrated with business change management to ensure that IT is an enabler in increasing productivity and creating new business opportunities for the organisation.	5

Total Weight: 25

Assessment Status | **Draft**

LINK | **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
x				0.00
x				0.00

AIG Manage Changes

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.75	1.00	0.75
4	0.44	1.00	0.44
5	0.20	1.00	0.20

Maturity Level = 3.39

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				
			x	5.00

Do you agree...				
			x	5.00
			x	5.00

Do you agree...				
	x			1.65
			x	5.00
			x	5.00
		x		3.30

Do you agree...				
	x			1.65
		x		1.65
		x		1.65
			x	3.30
			x	1.65
			x	3.30
x				0.00

Do you agree...				
		x		1.65
	x			0.00
	x			0.00
			x	0.00
			x	3.30

Process	AI7 Install and Accredite Solutions and Changes
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Management of the process of *Install and accredit solutions and changes* that satisfies the business requirement for IT of implementing new or changed systems that work without major problems after installation is:

Maturity Level	0 Non-existent
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Nr	Statement	Weight
1	There is a complete lack of formal installation or accreditation processes, and neither senior management nor IT staff members recognise the need to verify that solutions are fit for the intended purpose.	5

Total Weight 5

Maturity Level	1 Initial/Ad Hoc
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Nr	Statement	Weight
1	There is an awareness of the need to verify and confirm that implemented solutions serve the intended purpose.	5
2	Testing is performed for some projects, but the initiative for testing is left to the individual project teams, and the approaches taken vary.	5
3	Formal accreditation and sign-off are rare or non-existent.	5

Total Weight 15

Maturity Level	2 Repeatable but Intuitive
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Nr	Statement	Weight
1	There is some consistency amongst the testing and accreditation approaches, but typically they are not based on any methodology.	5
2	The individual development teams normally decide the testing approach, and there is usually an absence of integration testing.	5
3	There is an informal approval process.	5

Total Weight 15

Maturity Level	3 Defined
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Nr	Statement	Weight
1	A formal methodology relating to installation, migration, conversion and acceptance is in place.	5
2	IT installation and accreditation processes are integrated into the system life cycle and automated to some extent.	5
3	Training, testing and transition to production status and accreditation are likely to vary from the defined process, based on individual decisions.	5
4	The quality of systems entering production is inconsistent, with new systems often generating a significant level of post-implementation problems.	5

Total Weight 20

Maturity Level	4 Managed and Measurable
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Nr	Statement	Weight
1	The procedures are formalised and developed to be well organised and practical with defined test environments and accreditation procedures.	5
2	In practice, all major changes to systems follow this formalised approach.	5
3	Evaluation of meeting user requirements is standardised and measurable, producing metrics that can be effectively reviewed and analysed by management.	5
4	The quality of systems entering production is satisfactory to management even with reasonable levels of post-implementation problems.	5
5	Automation of the process is ad hoc and project-dependent.	5
6	Management may be satisfied with the current level of efficiency despite the lack of post-implementation evaluation.	5
7	The test system adequately reflects the live environment.	5
8	Stress testing for new systems and regression testing for existing systems are applied for major projects.	5

Total Weight 40

Maturity Level	5 Optimised
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Nr	Statement	Weight
1	The installation and accreditation processes have been refined to a level of good practice, based on the results of continuous improvement and refinement.	5
2	IT installation and accreditation processes are fully integrated into the system life cycle and automated when appropriate, facilitating the most efficient training, testing and transition to production status of new systems.	5
3	Well-developed test environments, problem registers and fault resolution processes ensure efficient and effective transition to the production environment.	5
4	Accreditation usually takes place with no rework, and post-implementation problems are normally limited to minor.	5
5	Post-implementation reviews are standardised, with lessons learned channelled back into the process to ensure continuous quality improvement.	5
6	Stress testing for new systems and regression testing for modified systems are consistently applied.	5

Total Weight 30

Assessment Status	Draft
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LINK [Back to Assessment Overview](#)

No	Not at all	A little	To some degree	Completely	Relative Importance
	x				0.00

Do you agree...					
				x	5.00
				x	5.00
				x	5.00

Do you agree...					
				x	5.00
				x	5.00
				x	5.00

Do you agree...					
			x		3.30
		x			1.65
				x	5.00
				x	5.00

Do you agree...					
		x			1.65
			x		1.65
				x	1.65
				x	3.30
	x				0.00
		x			1.65
				x	5.00
				x	5.00

Do you agree...					
		x			1.65
			x		1.65
				x	3.30
				x	3.30
	x				0.00
				x	1.65

AI7 Install and Accredite Solutions and Changes			
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Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.75	1.00	0.75
4	0.50	1.00	0.50
5	0.39	1.00	0.39

Maturity Level = 3.63

Instructions: a relative Weight between 0 and 10 should be allocated for each statement, and then an "x" is used to indicate which statement is applicable

Process DS1 Define and Manage Service Levels

Management of the process of *Define and manage service levels* that satisfies the business requirement for IT of ensuring the alignment of key IT services with the business strategy is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	Management has not recognised the need for a process for defining service levels.	5
2	Accountabilities and responsibilities for monitoring them are not assigned.	5
Total Weight		10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	There is awareness of the need to manage service levels, but the process is informal and reactive.	5
2	The responsibility and accountability for defining and managing services are not defined.	5
3	If performance measurements exist, they are qualitative only with imprecisely defined goals.	5
4	Reporting is informal, infrequent and inconsistent.	5
Total Weight		20

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	There are agreed-upon service levels, but they are informal and not reviewed.	5
2	Service level reporting is incomplete and may be irrelevant or misleading for customers.	5
3	Service level reporting is dependent on the skills and initiative of individual managers.	5
4	A service level co-ordinator is appointed with defined responsibilities, but limited authority.	5
5	If a process for compliance to SLAs exists, it is voluntary and not enforced.	5
Total Weight		25

Maturity Level 3 Defined

Nr	Statement	Weight
1	Responsibilities are well defined, but with discretionary authority.	5
2	The SLA development process is in place with checkpoints for reassessing service levels and customer satisfaction.	5
3	Services and service levels are defined, documented and agreed-upon using a standard process.	5
4	Service level shortfalls are identified, but procedures on how to resolve shortfalls are informal.	5
5	There is a clear linkage between expected service level achievement and the funding provided.	5
6	Service levels are agreed to, but they may not address business needs.	5
Total Weight		30

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	Service levels are increasingly defined in the system requirements definition phase and incorporated into the design of the application and operational environments.	5
2	Customer satisfaction is routinely measured and assessed.	5
3	Performance measures reflect customer needs, rather than IT goals.	5
4	The measures for assessing service levels are becoming standardised and reflect industry norms.	5
5	The criteria for defining service levels are based on business criticality and include availability, reliability, performance, growth capacity, user support, continuity planning and security considerations.	5
6	Root cause analysis is routinely performed when service levels are not met.	5
7	The reporting process for monitoring service levels is becoming increasingly automated.	5
8	Operational and financial risks associated with not meeting agreed-upon service levels are defined and clearly understood.	5
9	A formal system of measurement is instituted and maintained.	5
Total Weight		45

Maturity Level 5 Optimised

Nr	Statement	Weight
1	Service levels are continuously re-evaluated to ensure alignment of IT and business objectives, whilst taking advantage of technology, including the cost-benefit ratio.	5
2	All service level management processes are subject to continuous improvement.	5
3	Customer satisfaction levels are continuously monitored and managed.	5
4	Expected service levels reflect strategic goals of business units and are evaluated against industry norms.	5
5	IT management has the resources and accountability needed to meet service level targets, and compensation is structured to provide incentives for meeting these targets.	5
6	Senior management monitors performance metrics as part of a continuous improvement process.	5
Total Weight		30

Assessment Status Draft

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

DS1 Define and Manage Service Levels

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.77	1.00	0.77
4	0.59	1.00	0.59
5	0.06	1.00	0.06

Maturity Level = 3.42

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
		x		3.30
		x		3.30
			x	5.00
			x	5.00
		x		3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
x				0.00
x				0.00
		x		3.30
		x		3.30
			x	5.00
			x	5.00
		x		3.30
		x		3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
x				0.00
		x		1.65
x				0.00

Process DS2 Manage Third-party Services

Management of the process of *Manage third-party services* that satisfies the business requirement for IT of providing satisfactory third-party services whilst being transparent about benefits, costs and risks is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	Responsibilities and accountabilities are not defined.	5
2	There are no formal policies and procedures regarding contracting with third parties.	5
3	Third-party services are neither approved nor reviewed by management.	5
4	There are no measurement activities and no reporting by third parties.	5
5	In the absence of a contractual obligation for reporting, senior management is not aware of the quality of the service delivered.	5
Total Weight		25

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	Management is aware of the need to have documented policies and procedures for third-party management, including signed contracts.	5
2	There are no standard terms of agreement with service providers.	5
3	Measurement of the services provided is informal and reactive.	5
4	Practices are dependent on the experience (e.g., on demand) of the individual and the supplier.	5
Total Weight		20

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	The process for overseeing third-party service providers, associated risks and the delivery of services is informal.	5
2	A signed, pro forma contract is used with standard vendor terms and conditions (e.g., the description of services to be provided).	5
3	Reports on the services provided are available, but do not support business objectives.	5
Total Weight		15

Maturity Level 3 Defined

Nr	Statement	Weight
1	Well-documented procedures are in place to govern third-party services, with clear processes for vetting and negotiating with vendors.	5
2	When an agreement for the provision of services is made, the relationship with the third party is purely a contractual one.	5
3	The nature of the services to be provided is detailed in the contract and includes legal, operational and control requirements.	5
4	The responsibility for oversight of third-party services is assigned.	5
5	Contractual terms are based on standardised templates.	5
6	The business risk associated with the third-party services is assessed and reported.	5
Total Weight		30

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	Formal and standardised criteria are established for defining the terms of engagement, including scope of work, services/deliverables to be provided, assumptions, schedule, costs, billing arrangements and responsibilities.	5
2	Responsibilities for contract and vendor management are assigned.	5
3	Vendor qualifications, risks and capabilities are verified on a continual basis.	5
4	Service requirements are defined and linked to business objectives.	5
5	A process exists to review service performance against contractual terms, providing input to assess current and future third-party services.	5
6	Transfer pricing models are used in the procurement process.	5
7	All parties involved are aware of service, cost and milestone expectations.	5
8	Agreed-upon goals and metrics for the oversight of service providers exist.	5
Total Weight		40

Maturity Level 5 Optimised

Nr	Statement	Weight
1	Contracts signed with third parties are reviewed periodically at predefined intervals.	5
2	The responsibility for managing suppliers and the quality of the services provided is assigned.	5
3	Evidence of contract compliance to operational, legal and control provisions is monitored, and corrective action is enforced.	5
4	The third party is subject to independent periodic review, and feedback on performance is provided and used to improve service delivery.	5
5	Measurements vary in response to changing business conditions.	5
6	Measures support early detection of potential problems with third-party services.	5
7	Comprehensive, defined reporting of service level achievement is linked to the third-party compensation.	5
8	Management adjusts the process of third-party service acquisition and monitoring based on the measures.	5
Total Weight		40

Assessment Status Draft

LINK Back to Assessment Overview

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00

Do you agree...				Relative Importance
			x	
			x	5.00
			x	5.00
			x	5.00

Do you agree...				Relative Importance
			x	
			x	5.00
			x	5.00

Do you agree...				Relative Importance
			x	
			x	5.00
		x		3.30

Do you agree...				Relative Importance
			x	
			x	3.30
			x	3.30
			x	3.30
			x	5.00
			x	5.00
			x	5.00
x				0.00

Do you agree...				Relative Importance
			x	
			x	5.00
			x	5.00
			x	1.65
			x	0.00
x				0.00
x				0.00
			x	5.00
			x	3.30

DS2 Manage Third-party Services

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.94	1.00	0.94
4	0.75	1.00	0.75
5	0.54	1.00	0.54

Maturity Level = 4.23

Instructions: a relative Weight between 0 and 10 should be allocated for each statement, and then an "x" is used to indicate which statement is applicable

Process **DS3 Manage Performance and Capacity**

Management of the process of *Manage performance and capacity* that satisfies the business requirement for IT of optimising the performance of IT infrastructure, resources and capabilities in response to business needs is:

Maturity Level **0 Non-existent**

Nr	Statement	Weight
1	Management does not recognise that key business processes may require high levels of performance from IT or that the overall business need for IT services may exceed capacity.	5
2	There is no capacity planning process in place.	5
Total Weight		10

Maturity Level **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	Users devise workarounds for performance and capacity constraints.	5
2	There is very little appreciation of the need for capacity and performance planning by the owners of the business processes.	5
3	Action taken toward managing performance and capacity is typically reactive.	5
4	The process for planning capacity and performance is informal.	5
5	The understanding of current and future capacity and performance of IT resources is limited.	5
Total Weight		25

Maturity Level **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	Business and IT management are aware of the impact of not managing performance and capacity.	5
2	Performance needs are generally met based on assessments of individual systems and the knowledge of support and project teams.	5
3	Some individual tools may be used to diagnose performance and capacity problems, but the consistency of results is dependent on the expertise of key individuals.	5
4	There is no overall assessment of the IT performance capability or consideration of peak and worst-case loading situations.	5
5	Availability problems are likely to occur in an unexpected and random fashion and take considerable time to diagnose and correct.	5
6	Any performance measurement is based primarily on IT needs and not on customer needs.	5
Total Weight		30

Maturity Level **3 Defined**

Nr	Statement	Weight
1	Performance and capacity requirements are defined throughout the system life cycle.	5
2	There are defined service level requirements and metrics that can be used to measure operational performance.	5
3	Future performance and capacity requirements are modelled following a defined process.	5
4	Reports are produced giving performance statistics.	5
5	Performance- and capacity-related problems are still likely to occur and be time-consuming to correct.	5
6	Despite published service levels, users and customers may feel sceptical about the service capability.	5
Total Weight		30

Maturity Level **4 Managed and Measurable**

Nr	Statement	Weight
1	Processes and tools are available to measure system usage, performance and capacity, and results are compared to defined goals.	5
2	Up-to-date information is available, giving standardised performance statistics and alerting incidents caused by insufficient performance and capacity.	5
3	Insufficient performance and capacity issues are dealt with according to defined and standardised procedures.	5
4	Automated tools are used to monitor specific resources, such as disk space, networks, servers and network gateways.	5
5	Performance and capacity statistics are reported in business process terms, so users and customers understand IT service levels.	5
6	Users feel generally satisfied with the current service capability and may demand new and improved availability levels.	5
7	Metrics for measuring IT performance and capacity are agreed upon but may be only sporadically and inconsistently applied.	5
Total Weight		35

Maturity Level **5 Optimised**

Nr	Statement	Weight
1	The performance and capacity plans are fully synchronised with the business demand forecasts.	5
2	The IT infrastructure and business demand are subject to regular reviews to ensure that optimum capacity is achieved at the lowest possible cost.	5
3	Tools for monitoring critical IT resources are standardised and used across platforms and linked to an organisation-wide incident management system.	5
4	Monitoring tools detect and can automatically correct performance- and capacity-related issues.	5
5	Trend analysis is performed and shows imminent performance problems caused by increased business volumes, enabling planning and avoidance of unexpected issues.	5
6	Metrics for measuring IT performance and capacity have been fine-tuned into outcome measures and performance indicators for all critical business processes and are consistently measured.	5
7	Management adjusts the planning for performance and capacity following analysis of these measures.	5
Total Weight		35

Assessment Status **Draft**

LINK **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

DS3 Manage Performance and Capacity

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.83	1.00	0.83
4	0.47	1.00	0.47
5	0.42	1.00	0.42

Maturity Level = 3.73

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
		x		3.30
		x		3.30
			x	5.00
			x	5.00
			x	5.00

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
		x		3.30
	x			1.65
			x	5.00
x				0.00
x				0.00
		x		3.30

Do you agree...				Relative Importance
Not at all	A little	To some degree	Completely	
		x		3.30
	x			1.65
x				0.00
x				0.00
		x		3.30
		x		3.30
		x		3.30

Process D55 Ensure Systems Security

Management of the process of Ensure systems security that satisfies the business requirements for IT of maintaining the integrity of information and processing infrastructure and minimising the impact of security vulnerabilities and incidents is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	The organisation does not recognise the need for IT security.	5
2	Responsibilities and accountabilities are not assigned for ensuring security.	5
3	Measures supporting the management of IT security are not implemented.	5
4	There is no IT security reporting and no response process for IT security breaches.	5
5	There is a complete lack of a recognisable system security administration process.	5
Total Weight		25

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The organisation recognises the need for IT security.	5
2	Awareness of the need for security depends primarily on the individual.	5
3	IT security is addressed on a reactive basis.	5
4	IT security is not measured.	5
5	Detected IT security breaches invoke finger-pointing responses, because responsibilities are unclear.	5
6	Responses to IT security breaches are unpredictable.	5
Total Weight		30

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	Responsibilities and accountabilities for IT security are assigned to an IT security co-ordinator, although the management authority of the co-ordinator is limited.	5
2	Awareness of the need for security is fragmented and limited.	5
3	Although security-relevant information is produced by systems, it is not analysed.	5
4	Services from third parties may not address the specific security needs of the organisation.	5
5	Security policies are being developed, but skills and tools are inadequate.	5
6	IT security reporting is incomplete, misleading or not pertinent.	5
7	Security training is available but is undertaken primarily at the initiative of the individual.	5
8	IT security is seen primarily as the responsibility and domain of IT and the business does not see IT security as within its domain.	5
Total Weight		40

Maturity Level 3 Defined

Nr	Statement	Weight
1	Security awareness exists and is promoted by management.	5
2	IT security procedures are defined and aligned with IT security policy.	5
3	Responsibilities for IT security are assigned and understood, but not consistently enforced.	5
4	An IT security plan and security solutions exist as driven by risk analysis.	5
5	Reporting on security does not contain a clear business focus.	5
6	Ad hoc security testing (e.g., intrusion testing) is performed.	5
7	Security training is available for IT and the business, but is only informally scheduled and managed.	5
Total Weight		35

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	Responsibilities for IT security are clearly assigned, managed and enforced.	5
2	IT security risk and impact analysis is consistently performed.	5
3	Security policies and procedures are completed with specific security baselines.	5
4	Exposure to methods for promoting security awareness is mandatory.	5
5	User identification, authentication and authorisation are standardised.	5
6	Security certification is pursued for staff members who are responsible for the audit and management of security.	5
7	Security testing is completed using standard and formalised processes, leading to improvements of security levels.	5
8	IT security processes are co-ordinated with an overall organisation security function.	5
9	IT security reporting is linked to business objectives.	5
10	IT security training is conducted in both the business and IT.	5
11	IT security training is planned and managed in a manner that responds to business needs and defined security risk profiles.	5
12	Goals and metrics for security management have been defined but are not yet measured.	5
Total Weight		55

Maturity Level 5 Optimised

Nr	Statement	Weight
1	IT security is a joint responsibility of business and IT management and is integrated with corporate security business objectives.	5
2	IT security requirements are clearly defined, optimised and included in an approved security plan.	5
3	Users and customers are increasingly accountable for defining security requirements, and security functions are integrated with applications at the design stage.	5
4	Security incidents are promptly addressed with formalised incident response procedures supported by automated tools.	5
5	Periodic security assessments are conducted to evaluate the effectiveness of the implementation of the security plan.	5
6	Information on threats and vulnerabilities is systematically collected and analysed.	5
7	Adequate controls to mitigate risks are promptly communicated and implemented.	5
8	Security testing, root cause analysis of security incidents and proactive identification of risk are used for continuous process improvements.	5
9	Security processes and technologies are integrated organisation-wide.	5
10	Metrics for security management are measured, collected and communicated.	5
11	Management uses these measures to adjust the security plan in a continuous improvement process.	5
Total Weight		55

Assessment Status Draft

Back to Assessment Overview

Not at all	A little	To some degree	Completely	Relative Importance
				0.00
x				0.00

D55 Ensure Systems Security

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.47	1.00	0.47
4	0.36	1.00	0.36
5	0.15	1.00	0.15

Maturity Level = 2.98

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
			x	5.00

Do you agree...				Relative Importance
			x	5.00

Do you agree...				Relative Importance
			x	1.65
			x	1.65
			x	3.30
			x	1.65
			x	3.30
			x	3.30
			x	1.65

Do you agree...				Relative Importance
			x	0.00
			x	1.65
			x	1.65
			x	1.65
			x	3.30
			x	3.30
			x	1.65
			x	1.65
			x	0.00
			x	1.65
			x	1.65

Do you agree...				Relative Importance
			x	0.00
			x	0.00
			x	1.65
			x	0.00
			x	0.00
			x	0.00
			x	1.65
			x	0.00
			x	0.00
			x	1.65
			x	1.65

Process PO1 Define a Strategic IT Plan

Management of the process of *Define a strategic IT plan* that satisfies the business requirement for IT of sustaining or extending the business strategy and governance requirements while being transparent about benefits, costs and risks is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	IT strategic planning is not performed.	5
2	There is no management awareness that IT strategic planning is needed to support business goals.	5
Total Weight		10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The need for IT strategic planning is known by IT management.	5
2	IT planning is performed on an as-needed basis in response to a specific business requirement.	5
3	IT strategic planning is occasionally discussed at IT management meetings.	5
4	The alignment of business requirements, applications and technology takes place reactively rather than by an organisationwide strategy.	5
5	The strategic risk position is identified informally on a project-by-project basis.	5
Total Weight		25

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	IT strategic planning is shared with business management on an as-needed basis.	5
2	Updating of the IT plans occurs in response to requests by management.	5
3	Strategic decisions are driven on a project-by-project basis without consistency with an overall organisation strategy.	5
4	The risks and user benefits of major strategic decisions are recognised in an intuitive way.	5
Total Weight		20

Maturity Level 3 Defined

Nr	Statement	Weight
1	A policy defines when and how to perform IT strategic planning.	5
2	IT strategic planning follows a structured approach that is documented and known to all staff.	5
3	The IT planning process is reasonably sound and ensures that appropriate planning is likely to be performed.	5
4	However, discretion is given to individual managers with respect to implementation of the process, and there are no procedures to examine the process.	5
5	The overall IT strategy includes a consistent definition of risks that the organisation is willing to take as an innovator or follower.	5
6	The IT financial, technical and human resources strategies increasingly influence the acquisition of new products and technologies.	5
7	IT strategic planning is discussed at business management meetings.	5
Total Weight		35

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	IT strategic planning is standard practice and exceptions would be noticed by management.	5
2	IT strategic planning is a defined management function with senior-level responsibilities.	5
3	Management is able to monitor the IT strategic planning process, make informed decisions based on it and measure its effectiveness.	5
4	Both short-range and long-range IT planning occurs and is cascaded down into the organisation, with updates done as needed.	5
5	The IT strategy and organisationwide strategy are increasingly becoming more co-ordinated by addressing business processes and value-added capabilities and leveraging the use of applications and technologies through business process re-engineering.	5
6	There is a well-defined process for determining the usage of internal and external resources required in system development and operations.	5
Total Weight		30

Maturity Level 5 Optimised

Nr	Statement	Weight
1	IT strategic planning is a documented, living process; is continuously considered in business goal setting; and results in discernible business value through investments in IT.	5
2	Risk and value-added considerations are continuously updated in the IT strategic planning process.	5
3	Realistic long-range IT plans are developed and constantly updated to reflect changing technology and business-related developments.	5
4	Benchmarking against well-understood and reliable industry norms takes place and is integrated with the strategy formulation process.	5
5	The strategic plan includes how new technology developments can drive the creation of new business capabilities and improve the competitive advantage of the organisation.	5
Total Weight		25

Assessment Status Draft

LINK **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

PO1 Define a Strategic IT Plan

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	0.92	1.00	0.92
3	0.90	1.00	0.90
4	0.78	1.00	0.73
5	0.73	1.00	0.73

Maturity Level = 4.32

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
			x	
			x	5.00

Do you agree...				Relative Importance
			x	
			x	5.00
			x	5.00
		x		3.30

Do you agree...				Relative Importance
			x	
			x	3.30
			x	5.00

Do you agree...				Relative Importance
			x	
			x	5.00
			x	5.00
			x	5.00
			x	3.30
			x	1.65

Do you agree...				Relative Importance
			x	
			x	3.30
			x	5.00
			x	3.30
			x	5.00

Process DS6 Identify and Allocate Costs

Management of the process of *Identify and allocate costs* that satisfies the business requirement for IT of ensuring transparency and understanding of IT costs and improving cost-efficiency through well-informed use of IT services is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	There is a complete lack of any recognisable process for identifying and allocating costs with respect to information services provided.	5
2	The organisation does not even recognise that there is an issue to be addressed with respect to cost accounting, and there is no communication about the issue.	5
Total Weight		10

Assessment Status Draft

LINK **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

DS6 Identify and Allocate Costs

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	0.80	1.00	0.80
3	0.75	1.00	0.75
4	0.62	1.00	0.62
5	0.17	1.00	0.17

Maturity Level = 3.33

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	There is a general understanding of the overall costs for information services, but there is no breakdown of costs per user, customer, department, groups of users, service functions, projects or deliverables.	5
2	There is virtually no cost monitoring, with only aggregate cost reporting to management.	5
3	IT costs are allocated as an operational overhead.	5
4	Business is provided with no information on the cost or benefits of service provision.	5
Total Weight		20

Do you agree...				
			x	5.00

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	There is overall awareness of the need to identify and allocate costs.	5
2	Cost allocation is based on informal or rudimentary cost assumptions, e.g., hardware costs, and there is virtually no linking to value drivers.	5
3	Cost allocation processes are repeatable.	5
4	There is no formal training or communication on standard cost identification and allocation procedures.	5
5	Responsibility for the collection or allocation of costs is not assigned.	5
Total Weight		25

Do you agree...				
			x	5.00
			x	5.00
			x	5.00
x				0.00
			x	5.00

Maturity Level 3 Defined

Nr	Statement	Weight
1	There is a defined and documented information services cost model.	5
2	A process for relating IT costs to the services provided to users is defined.	5
3	An appropriate level of awareness exists regarding the costs attributable to information services.	5
4	The business is provided with rudimentary information on costs.	5
Total Weight		20

Do you agree...				
	x			1.65
			x	5.00
		x		3.30
			x	5.00

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	Information services cost management responsibilities and accountabilities are defined and fully understood at all levels and are supported by formal training.	5
2	Direct and indirect costs are identified and reported in a timely and automated manner to management, business process owners and users.	5
3	Generally, there is cost monitoring and evaluation, and actions are taken if cost deviations are detected.	5
4	Information services cost reporting is linked to business objectives and SLAs and is monitored by business process owners.	5
5	A finance function reviews the reasonableness of the cost allocation process.	5
6	An automated cost accounting system exists, but is focused on the information services function rather than on business processes.	5
7	Goals and metrics are agreed to for cost measurement but are inconsistently measured.	5
Total Weight		35

Do you agree...				
	x			1.65
	x			1.65
			x	5.00
	x			1.65
		x		3.30
		x		3.30
			x	5.00

Maturity Level 5 Optimised

Nr	Statement	Weight
1	Costs of services provided are identified, captured, summarised and reported to management, business process owners and users.	5
2	Costs are identified as chargeable items and could support a chargeback system that appropriately bills users for services provided, based on utilisation.	5
3	Cost details support SLAs.	5
4	The monitoring and evaluation of costs of services are used to optimise the cost of IT resources.	5
5	Cost figures obtained are used to verify benefit realisation in the organisation's budgeting process.	5
6	Information services cost reporting provides early warning of changing business requirements through intelligent reporting systems.	5
7	A variable cost model is utilised, derived from volumes processed for each service provided.	5
8	Cost management is refined to a level of industry practice, based on the result of continuous improvement and benchmarking with other organisations.	5
9	Cost optimisation is an ongoing process.	5
10	Management reviews goals and metrics as part of a continuous improvement process in redesigning cost measurement systems.	5
Total Weight		50

Do you agree...				
	x			1.65
x				0.00
x				0.00
	x			1.65
	x			1.65
x				0.00
	x			1.65
x				0.00
	x			1.65
x				0.00

Process | **DS7 Educate and Train Users**

Management of the process of *Educate and train users* that satisfies the business requirement for IT of effectively and efficiently using applications and technology solutions and ensuring user compliance with policies and procedures is:

Maturity Level | **0 Non-existent**

Nr	Statement	Weight
1	There is a complete lack of a training and education programme.	5
2	The organisation does not even recognise that there is an issue to be addressed with respect to training, and there is no communication on the issue.	5

Total Weight | 10

Maturity Level | **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	There is evidence that the organisation has recognised the need for a training and education programme, but there are no standardised processes.	5
2	In the absence of an organised programme, employees identify and attend training courses on their own.	5
3	Some of these training courses address the issues of ethical conduct, system security awareness and security practices.	5
4	The overall management approach lacks any cohesion, and there is only sporadic and inconsistent communication on issues and approaches to address training and education.	5

Total Weight | 20

Maturity Level | **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	There is awareness of the need for a training and education programme and for associated processes throughout the organisation.	5
2	Training is beginning to be identified in the individual performance plans of employees.	5
3	Processes are developed to the stage where informal training and education classes are taught by different instructors, whilst covering the same subject matter with different approaches.	5
4	Some of the classes address the issues of ethical conduct and system security awareness and practices.	5
5	There is high reliance on the knowledge of individuals.	5
6	However, there is consistent communication on the overall issues and the need to address them.	5

Total Weight | 30

Maturity Level | **3 Defined**

Nr	Statement	Weight
1	A training and education programme is instituted and communicated, and employees and managers identify and document training needs.	5
2	Training and education processes are standardised and documented.	5
3	Budgets, resources, facilities and trainers are being established to support the training and education programme.	5
4	Formal classes are given to employees on ethical conduct and system security awareness and practices.	5
5	Most training and education processes are monitored, but not all deviations are likely to be detected by management.	5
6	Analysis of training and education problems is only occasionally applied.	5

Total Weight | 30

Maturity Level | **4 Managed and Measurable**

Nr	Statement	Weight
1	There is a comprehensive training and education programme that yields measurable results.	5
2	Responsibilities are clear, and process ownership is established.	5
3	Training and education are components of employee career paths.	5
4	Management supports and attends training and educational sessions.	5
5	All employees receive ethical conduct and system security awareness training.	5
6	All employees receive the appropriate level of system security practices training in protecting against harm from failures affecting availability, confidentiality and integrity.	5
7	Management monitors compliance by constantly reviewing and updating the training and education programme and processes.	5
8	Processes are under improvement and enforce best internal practices.	5

Total Weight | 40

Maturity Level | **5 Optimised**

Nr	Statement	Weight
1	Training and education result in an improvement of individual performance.	5
2	Training and education are critical components of the employee career paths.	5
3	Sufficient budgets, resources, facilities and instructors are provided for the training and education programmes.	5
4	Processes are refined and are under continuous improvement, taking advantage of best external practices and maturity modelling with benchmarking against other organisations.	5
5	All problems and deviations are analysed for root causes, and efficient action is expediently identified and taken.	5
6	There is a positive attitude with respect to ethical conduct and system security principles.	5
7	IT is used in an extensive, integrated and optimised manner to automate and provide tools for the training and education programme.	5
8	External training experts are leveraged, and benchmarks are used for guidance.	5

Total Weight | 40

Assessment Status | **Draft**

LINK | **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
x				0.00
x				0.00

DS7 Educate and Train Users

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	0.75	1.00	0.75
2	0.55	1.00	0.55
3	0.55	1.00	0.55
4	0.29	1.00	0.29
5	0.29	1.00	0.29

Maturity Level = 2.43

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
			x	5.00
			x	5.00
	x			1.65
		x		3.30

Do you agree...				Relative Importance
			x	5.00
	x			1.65
	x			1.65
	x			1.65
		x		3.30
		x		3.30

Do you agree...				Relative Importance
		x		3.30
		x		3.30
			x	5.00
	x			1.65
	x			1.65
	x			1.65

Do you agree...				Relative Importance
x				0.00
			x	5.00
	x			1.65
	x			1.65
x				0.00
x				0.00
	x			1.65
	x			1.65

Do you agree...				Relative Importance
		x		3.30
x				0.00
		x		3.30
x				0.00
	x			1.65
	x			1.65
x				0.00
	x			1.65

Process | **DS8 Manage Service Desk and Incidents**

Management of the process of *Manage service desk and incidents* that satisfies the business requirement for IT of enabling effective use of IT systems by ensuring resolution and analysis of end-user queries, questions and incidents is:

Maturity Level | **0 Non-existent**

Nr	Statement	Weight
1	There is no support to resolve user questions and issues.	5
2	There is a complete lack of an incident management process.	5
3	The organisation does not recognise that there is an issue to be addressed.	5
Total Weight		15

Maturity Level | **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	Management recognises that a process supported by tools and personnel is required to respond to user queries and manage incident resolution.	5
2	There is, however, no standardised process, and only reactive support is provided.	5
3	Management does not monitor user queries, incidents or trends.	5
4	There is no escalation process to ensure that problems are resolved.	5
Total Weight		20

Maturity Level | **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	There is organisational awareness of the need for a service desk function and an incident management process.	5
2	Assistance is available on an informal basis through a network of knowledgeable individuals.	5
3	These individuals have some common tools available to assist in incident resolution.	5
4	There is no formal training and communication on standard procedures, and responsibility is left to the individual.	5
Total Weight		20

Maturity Level | **3 Defined**

Nr	Statement	Weight
1	The need for a service desk function and incident management process is recognised and accepted.	5
2	Procedures have been standardised and documented, and informal training is occurring.	5
3	It is, however, left to the individual to get training and follow the standards.	5
4	Frequently asked questions (FAQs) and user guidelines are developed, but individuals must find them and may not follow them.	5
5	Queries and incidents are tracked on a manual basis and individually monitored, but a formal reporting system does not exist.	5
6	The timely response to queries and incidents is not measured and incidents may go unresolved.	5
7	Users have received clear communications on where and how to report on problems and incidents.	5
Total Weight		35

Maturity Level | **4 Managed and Measurable**

Nr	Statement	Weight
1	There is a full understanding of the benefits of an incident management process at all levels of the organisation, and the service desk function is established in appropriate organisational units.	5
2	The tools and techniques are automated with a centralised knowledge base.	5
3	The service desk staff members closely interact with the problem management staff members.	5
4	The responsibilities are clear, and effectiveness is monitored.	5
5	Procedures for communicating, escalating and resolving incidents are established and communicated.	5
6	Service desk personnel are trained, and processes are improved through the use of task-specific software.	5
7	Management develops metrics for the performance of the service desk.	5
Total Weight		35

Maturity Level | **5 Optimised**

Nr	Statement	Weight
1	The incident management process and service desk function are established and well organised and take on a customer service orientation by being knowledgeable, customer-focused and helpful.	5
2	Metrics are systematically measured and reported.	5
3	Extensive, comprehensive FAQs are an integral part of the knowledge base.	5
4	Tools are in place to enable a user to self-diagnose and resolve incidents.	5
5	Advice is consistent, and incidents are resolved quickly within a structured escalation process.	5
6	Management utilises an integrated tool for performance statistics of the incident management process and the service desk function.	5
7	Processes have been refined to the level of best industry practices, based on the results of analysing performance indicators, continuous improvement and benchmarking with other organisations.	5
Total Weight		35

Assessment Status | **Draft**

LINK **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00
x				0.00

Do you agree...				
			x	5.00

Do you agree...				
			x	5.00

Do you agree...				
		x		3.30
	x			1.65
	x			1.65
	x			1.65
			x	5.00
		x		3.30
			x	5.00

Do you agree...				
		x		3.30
			x	5.00
		x		3.30
	x			1.65
	x			1.65
			x	5.00
		x		3.30

Do you agree...				
			x	5.00
		x		3.30
	x			1.65
		x		3.30
	x			1.65
			x	5.00
	x			1.65

DS8 Manage Service Desk and Incidents

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.62	1.00	0.62
4	0.66	1.00	0.66
5	0.62	1.00	0.62

Maturity Level = **3.89**

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process DS9 Manage the Configuration

Management of the process of *Manage the configuration* that satisfies the business requirement for IT of optimising the IT infrastructure, resources and capabilities, and accounting for IT assets is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	Management does not have an appreciation of the benefits of having a process in place that is capable of reporting on and managing the IT Infrastructure, for either hardware or software configurations.	5

Total Weight 5

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The need for configuration management is recognised.	5
2	Basic configuration management tasks, such as maintaining inventories of hardware and software, are performed on an individual basis.	5
3	No standard practices are defined.	5

Total Weight 15

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	Management is aware of the need for controlling the IT configuration and understands the benefits of accurate and complete configuration information, but there is implicit reliance on technical personnel knowledge and expertise.	5
2	Configuration management tools are being employed to a certain degree, but differ amongst platforms.	5
3	Moreover, no standard working practices are defined.	5
4	Configuration data content is limited and not used by interrelated processes, such as change management and problem management.	5

Total Weight 20

Maturity Level 3 Defined

Nr	Statement	Weight
1	The procedures and working practices are documented, standardised and communicated, but training and application of the standards is up to the individual.	5
2	In addition, similar configuration management tools are being implemented across platforms.	5
3	Deviations from procedures are unlikely to be detected, and physical verifications are performed inconsistently.	5
4	Some automation occurs to assist in tracking equipment and software changes.	5
5	Configuration data are being used by interrelated processes.	5

Total Weight 25

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The need to manage the configuration is recognised at all levels of the organisation, and good practices continue to evolve.	5
2	Procedures and standards are communicated and incorporated into training, and deviations are monitored, tracked and reported.	5
3	Automated tools, such as push technology, are utilised to enforce standards and improve stability.	5
4	Configuration management systems do cover most of the IT assets and allow for proper release management and distribution control.	5
5	Exception analyses, as well as physical verifications, are consistently applied and their root causes are investigated.	5

Total Weight 25

Maturity Level 5 Optimised

Nr	Statement	Weight
1	All IT assets are managed within a central configuration management system that contains all necessary information about components, their interrelationships and events.	5
2	The configuration data are aligned with vendor catalogues.	5
3	There is full integration of interrelated processes, and they use and update configuration data in an automated fashion.	5
4	Baseline audit reports provide essential hardware and software data for repair, service, warranty, upgrade and technical assessments of each individual unit.	5
5	Rules for limiting installation of unauthorised software are enforced.	5
6	Management forecasts repairs and upgrades from analysis reports, providing scheduled upgrades and technology refreshment capabilities.	5
7	Asset tracking and monitoring of individual IT assets protect them and prevent theft, misuse and abuse.	5

Total Weight 35

Assessment Status Draft

[LINK Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00

Do you agree...				Relative Importance
			x	
	x			1.65
			x	5.00

Do you agree...				Relative Importance
			x	
x				0.00
			x	5.00
			x	5.00

Do you agree...				Relative Importance
	x			
		x		1.65
x				0.00
x				0.00
		x		1.65

Do you agree...				Relative Importance
	x			
		x		1.65
x				0.00
		x		1.65
x				0.00

Do you agree...				Relative Importance
x				
			x	3.30
x				0.00
		x		1.65

DS9 Manage the Configuration

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	0.78	1.00	0.78
2	0.75	1.00	0.75
3	0.20	1.00	0.20
4	0.20	1.00	0.20
5	0.14	1.00	0.14

Maturity Level = 2.06

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process DS10 Manage Problems

Management of the process of *Manage problems* that satisfies the business requirement for IT of ensuring end users' satisfaction with service offerings and service levels, and reducing solution and service delivery defects and rework is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	There is no awareness of the need for managing problems, as there is no differentiation of problems and incidents.	5
2	Therefore, there is no attempt made to identify the root cause of incidents.	5
Total Weight		10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	Personnel recognise the need to manage problems and resolve underlying causes.	5
2	Key knowledgeable personnel provide some assistance with problems relating to their area of expertise, but the responsibility for problem management is not assigned.	5
3	Information is not shared, resulting in additional problem creation and loss of productive time while searching for answers.	5
Total Weight		15

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	There is a wide awareness of the need for and benefits of managing IT-related problems within both the business units and information services function.	5
2	The resolution process is evolved to a point where a few key individuals are responsible for identifying and resolving problems.	5
3	Information is shared amongst staff in an informal and reactive way.	5
4	The service level to the user community varies and is hampered by insufficient, structured knowledge available to the problem manager.	5
Total Weight		20

Maturity Level 3 Defined

Nr	Statement	Weight
1	The need for an effective integrated problem management system is accepted and evidenced by management support, and budgets for the staffing and training are available.	5
2	Problem resolution and escalation processes have been standardised.	5
3	The recording and tracking of problems and their resolutions are fragmented within the response team, using the available tools without centralisation.	5
4	Deviations from established norms or standards are likely to be undetected.	5
5	Information is shared among staff in a proactive and formal manner.	5
6	Management review of incidents and analysis of problem identification and resolution are limited and informal.	5
Total Weight		30

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The problem management process is understood at all levels within the organisation.	5
2	Responsibilities and ownership are clear and established.	5
3	Methods and procedures are documented, communicated and measured for effectiveness.	5
4	The majority of problems are identified, recorded and reported, and resolution is initiated.	5
5	Knowledge and expertise are cultivated, maintained and developed to higher levels, as the function is viewed as an asset and major contributor to the achievement of IT objectives and improvement of IT services.	5
6	Problem management is well integrated with interrelated processes, such as incident, change, availability and configuration management, and assists customers in managing data, facilities and operations.	5
7	Goals and metrics have been agreed upon for the problem management process.	5
Total Weight		35

Maturity Level 5 Optimised

Nr	Statement	Weight
1	The problem management process is evolved into a forward-looking and proactive one, contributing to the IT objectives.	5
2	Problems are anticipated and prevented.	5
3	Knowledge regarding patterns of past and future problems is maintained through regular contacts with vendors and experts.	5
4	The recording, reporting and analysis of problems and resolutions are automated and fully integrated with configuration data management.	5
5	Goals are measured consistently.	5
6	Most systems have been equipped with automatic detection and warning mechanisms, which are continuously tracked and evaluated.	5
7	The problem management process is analysed for continuous improvement based on analysis of measures and is reported to stakeholders.	5
Total Weight		35

Assessment Status Draft

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00

Do you agree...				
			x	5.00
			x	5.00
			x	5.00

Do you agree...				
			x	5.00
			x	5.00
			x	5.00

Do you agree...				
		x		3.30
	x			1.65
			x	5.00
		x		3.30
	x			1.65
		x		3.30

Do you agree...				
	x			1.65
	x			1.65
	x			1.65
		x		3.30
	x			1.65
	x			1.65
x				0.00

Do you agree...				
x				0.00
	x			1.65
	x			1.65
x				0.00
x				0.00
x				0.00

DS10 Manage Problems

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.61	1.00	0.61
4	0.33	1.00	0.33
5	0.09	1.00	0.09

Maturity Level = 3.03

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process DS11 Manage Data

Management of the process of *Manage data* that satisfies the business requirement for IT of optimising the use of information and ensuring that information is available as required is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	Data are not recognised as corporate resources and assets.	5
2	There is no assigned data ownership or individual accountability for data management.	5
3	Data quality and security are poor or non-existent.	5
Total Weight		15

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The organisation recognises a need for effective data management.	5
2	There is an <i>ad hoc</i> approach for specifying security requirements for data management, but no formal communications procedures are in place.	5
3	No specific training on data management takes place.	5
4	Responsibility for data management is not clear.	5
5	Backup/restoration procedures and disposal arrangements are in place.	5
Total Weight		25

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	The awareness of the need for effective data management exists throughout the organisation.	5
2	Data ownership at a high level begins to occur.	5
3	Security requirements for data management are documented by key individuals.	5
4	Some monitoring within IT is performed on data management key activities (e.g., backup, restoration, disposal).	5
5	Responsibilities for data management are informally assigned for key IT staff members.	5
Total Weight		25

Maturity Level 3 Defined

Nr	Statement	Weight
1	The need for data management within IT and across the organisation is understood and accepted.	5
2	Responsibility for data management is established.	5
3	Data ownership is assigned to the responsible party who controls integrity and security.	5
4	Data management procedures are formalised within IT, and some tools for backup/restoration and disposal of equipment are used.	5
5	Some monitoring over data management is in place.	5
6	Basic performance metrics are defined.	5
7	Training for data management staff members is emerging.	5
Total Weight		35

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The need for data management is understood, and required actions are accepted within the organisation.	5
2	Responsibility for data ownership and management are clearly defined, assigned and communicated within the organisation.	5
3	Procedures are formalised and widely known, and knowledge is shared.	5
4	Usage of current tools is emerging.	5
5	Goal and performance indicators are agreed to with customers and monitored through a well-defined process.	5
6	Formal training for data management staff members is in place.	5
Total Weight		30

Maturity Level 5 Optimised

Nr	Statement	Weight
1	The need for data management and the understanding of all required actions is understood and accepted within the organisation.	5
2	Future needs and requirements are explored in a proactive manner.	5
3	The responsibilities for data ownership and data management are clearly established, widely known across the organisation and updated on a timely basis.	5
4	Procedures are formalised and widely known, and knowledge sharing is standard practice.	5
5	Sophisticated tools are used with maximum automation of data management.	5
6	Goal and performance indicators are agreed to with customers, linked to business objectives and consistently monitored using a well-defined process.	5
7	Opportunities for improvement are constantly explored.	5
8	Training for data management staff members is instituted.	5
Total Weight		40

Assessment Status Draft

LINK [Back to Assessment Overview](#)

	Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...					
x					0.00
x					0.00
x					0.00

	Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...					
				x	5.00
				x	5.00
				x	5.00
				x	5.00
				x	5.00

	Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...					
				x	5.00
				x	5.00
				x	5.00
				x	5.00

	Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...					
		x			1.65
		x			1.65
		x			1.65
		x			1.65
				x	3.30
				x	3.30
x					0.00

	Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...					
		x			1.65
				x	3.30
	x				0.00
	x				0.00
	x				0.00

	Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...					
		x			1.65
	x				0.00
	x				0.00
	x				0.00
				x	3.30
		x			1.65
x					0.00
x					0.00

DS11 Manage Data

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.38	1.00	0.38
4	0.17	1.00	0.17
5	0.17	1.00	0.17

Maturity Level = 2.71

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process DS12 Manage the Physical Environment

Management of the process of *Manage the physical environment* that satisfies the business requirement for IT of protecting computer assets and business data and minimising the risk of business disruption is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	There is no awareness of the need to protect the facilities or the investment in computing resources.	5
2	Environmental factors, including fire protection, dust, power, and excessive heat and humidity, are neither monitored nor controlled.	5
Total Weight		10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The organisation recognises a business requirement to provide a suitable physical environment that protects the resources and personnel against man-made and natural hazards.	5
2	The management of facilities and equipment is dependent upon the skills and abilities of key individuals.	5
3	Personnel can move within the facilities without restriction.	5
4	Management does not monitor the facility environmental controls or the movement of personnel.	5
Total Weight		20

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	Environmental controls are implemented and monitored by the operations personnel.	5
2	Physical security is an informal process, driven by a small group of employees possessing a high level of concern about securing the physical facilities.	5
3	The facilities maintenance procedures are not well documented and rely upon good practices of a few individuals.	5
4	The physical security goals are not based on any formal standards, and management does not ensure that security objectives are achieved.	5
Total Weight		20

Maturity Level 3 Defined

Nr	Statement	Weight
1	The need to maintain a controlled computing environment is understood and accepted within the organisation.	5
2	Environmental controls, preventive maintenance and physical security are budget items approved and tracked by management.	5
3	Access restrictions are applied, with only approved personnel allowed access to the computing facilities.	5
4	Visitors are logged and escorted, depending on the individual.	5
5	The physical facilities are low-profile and not readily identifiable.	5
6	Civil authorities monitor compliance with health and safety regulations.	5
7	The risks are insured with minimal effort to optimise the insurance costs.	5
Total Weight		35

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The need to maintain a controlled computing environment is fully understood, as evident in the organisational structure and budget allocations.	5
2	Environmental and physical security requirements are documented, and access is strictly controlled and monitored.	5
3	Responsibility and ownership are established and communicated.	5
4	The facilities staff members are fully trained in emergency situations, as well as in health and safety practices.	5
5	Standardised control mechanisms are in place for restricting access to facilities and addressing environmental and safety factors.	5
6	Management monitors the effectiveness of controls and compliance with established standards.	5
7	Management has established goals and metrics for measuring management of the computing environment.	5
8	The recoverability of computing resources is incorporated into an organisational risk management process.	5
9	The integrated information is used to optimise insurance coverage and related costs.	5
Total Weight		45

Maturity Level 5 Optimised

Nr	Statement	Weight
1	There is an agreed-upon, long-term plan for the facilities required to support the organisation's computing environment.	5
2	Standards are defined for all facilities, covering site selection, construction, guarding, personnel safety, mechanical and electrical systems, and protection against environmental factors (e.g., fire, lighting, flooding).	5
3	All facilities are inventoried and classified according to the organisation's ongoing risk management process.	5
4	Access is strictly controlled on a job-need basis and monitored continuously, and all visitors are escorted at all times.	5
5	The environment is monitored and controlled through specialised equipment, and equipment rooms have become 'unmanned'.	5
6	Goals are consistently measured and evaluated.	5
7	Preventive maintenance programmes enforce a strict adherence to schedules, and regular tests are applied to sensitive equipment.	5
8	The facilities strategy and standards are aligned with IT services availability targets and integrated with business continuity planning and crisis management.	5
9	Management reviews and optimises the facilities using goals and metrics on a continual basis, capitalising on opportunities to improve the business contribution.	5
Total Weight		45

Assessment Status Draft

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				
x				0.00
x				0.00

DS12 Manage the Physical Environment

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.90	1.00	0.90
4	0.44	1.00	0.44
5	0.37	1.00	0.37

Maturity Level = 3.71

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process DS13 Manage Operations

Management of the process of *Manage operations* that satisfies the business requirement for IT of maintaining data integrity and ensuring that IT infrastructure can resist and recover from errors and failures is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	The organisation does not devote time and resources to the establishment of basic IT support and operations activities.	5

Total Weight 5

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	The organisation recognises the need for structuring the IT support functions.	5
2	Few standard procedures are established, and the operations activities are reactive in nature.	5
3	The majority of operational processes are informally scheduled, and processing requests are accepted without prior validation.	5
4	Computers, systems and applications supporting the business processes are frequently interrupted, delayed and unavailable.	5
5	Time is lost while employees wait for resources.	5
6	Output media sometimes show up in unexpected places or not at all.	5

Total Weight 30

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	The organisation is aware of the key role that IT operations activities play in providing IT support functions.	5
2	Budgets for tools are being allocated on a case-by-case basis.	5
3	IT support operations are informal and intuitive.	5
4	There is a high dependence on the skills and abilities of individuals.	5
5	The instructions covering what to do, when and in what order are not documented.	5
6	Some operator training exists, and there are some formal operating standards.	5

Total Weight 30

Maturity Level 3 Defined

Nr	Statement	Weight
1	The need for computer operations management is understood and accepted within the organisation.	5
2	Resources are allocated and some on-the-job training occurs.	5
3	Repeatable functions are formally defined, standardised, documented and communicated.	5
4	The events and completed task results are recorded, with limited reporting to management.	5
5	The use of automated scheduling and other tools is introduced to limit operator intervention.	5
6	Controls are introduced for the placement of new jobs in operations.	5
7	A formal policy is developed to reduce the number of unscheduled events.	5
8	Maintenance and service agreements with vendors are still informal in nature.	5

Total Weight 40

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	The computer operations and support responsibilities are clearly defined and ownership is assigned.	5
2	Operations are supported through resource budgets for capital expenditures and human resources.	5
3	Training is formalised and ongoing.	5
4	Schedules and tasks are documented and communicated, both internally to the IT function and to the business customers.	5
5	It is possible to measure and monitor the daily activities with standardised performance agreements and established service levels.	5
6	Any deviations from established norms are quickly addressed and corrected.	5
7	Management monitors the use of computing resources and completion of work or assigned tasks.	5
8	An ongoing effort exists to increase the level of process automation as a means of continuous improvement.	5
9	Formal maintenance and service agreements are established with vendors.	5
10	There is full alignment with problem, capacity and availability management processes, supported by an analysis of the causes of errors and failures.	5

Total Weight 50

Maturity Level 5 Optimised

Nr	Statement	Weight
1	IT support operations are effective, efficient and sufficiently flexible to meet service level needs with minimal lost productivity.	5
2	Operational IT management processes are standardised and documented in a knowledge base and are subject to continuous improvement.	5
3	Automated processes that support systems operate seamlessly and contribute to a stable environment.	5
4	All problems and failures are analysed to identify the root cause.	5
5	Regular meetings with change management ensure timely inclusion of changes in production schedules.	5
6	In co-operation with vendors, equipment is analysed for age and malfunction symptoms, and maintenance is mainly preventive in nature.	5

Total Weight 30

Assessment Status Draft

LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00

DS13 Manage Operations

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.87	1.00	0.87
4	0.83	1.00	0.83
5	0.72	1.00	0.72

Maturity Level = 4.42

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...				Relative Importance
			x	5.00

Do you agree...				Relative Importance
			x	5.00

Do you agree...				Relative Importance
			x	5.00
			x	5.00
		x		3.30
			x	5.00
	x			1.65
			x	5.00

Do you agree...				Relative Importance
			x	5.00
			x	5.00
		x		3.30
		x		3.30
			x	3.30
		x		3.30
			x	3.30
			x	5.00
			x	5.00
			x	5.00

Do you agree...				Relative Importance
			x	3.30
		x		1.65
			x	3.30
			x	5.00
		x		3.30
			x	5.00

Process | **ME1 Monitor and Evaluate IT Performance**

Management of the process of *Monitor and evaluate IT performance* that satisfies the business requirement for IT of transparency and understanding of IT cost, benefits, strategy, policies and service levels in accordance with governance requirements is:

Maturity Level | **0 Non-existent**

Nr	Statement	Weight
1	The organisation has no monitoring process implemented.	5
2	IT does not independently perform monitoring of projects or processes.	5
3	Useful, timely and accurate reports are not available.	5
4	The need for clearly understood process objectives is not recognised.	5

Total Weight | 20

Maturity Level | **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	Management recognises a need to collect and assess information about monitoring processes.	5
2	Standard collection and assessment processes have not been identified.	5
3	Monitoring is implemented and metrics are chosen on a case-by-case basis, according to the needs of specific IT projects and processes.	5
4	Monitoring is generally implemented reactively to an incident that has caused some loss or embarrassment to the organisation.	5
5	The accounting function monitors basic financial measures for IT.	5

Total Weight | 25

Maturity Level | **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	Basic measurements to be monitored are identified.	5
2	Collection and assessment methods and techniques exist, but the processes are not adopted across the entire organisation.	5
3	Interpretation of monitoring results is based on the expertise of key individuals.	5
4	Limited tools are chosen and implemented for gathering information, but the gathering is not based on a planned approach.	5

Total Weight | 20

Maturity Level | **3 Defined**

Nr	Statement	Weight
1	Management communicates and institutes standard monitoring processes.	5
2	Educational and training programmes for monitoring are implemented.	5
3	A formalised knowledge base of historical performance information is developed.	5
4	Assessment is still performed at the individual IT process and project level and is not integrated amongst all processes.	5
5	Tools for monitoring IT processes and service levels are defined.	5
6	Measurements of the contribution of the information services function to the performance of the organisation are defined, using traditional financial and operational criteria.	5
7	IT-specific performance measurements, non-financial measurements, strategic measurements, customer satisfaction measurements and service levels are defined.	5
8	A framework is defined for measuring performance.	5

Total Weight | 40

Maturity Level | **4 Managed and Measurable**

Nr	Statement	Weight
1	Management defines the tolerances under which processes must operate.	5
2	Reporting of monitoring results is being standardised and normalised.	5
3	There is integration of metrics across all IT projects and processes.	5
4	The IT organisation's management reporting systems are formalised.	5
5	Automated tools are integrated and leveraged organisationwide to collect and monitor operational information on applications, systems and processes.	5
6	Management is able to evaluate performance based on agreed-upon criteria approved by stakeholders.	5
7	Measurements of the IT function align with organisationwide goals.	5

Total Weight | 35

Maturity Level | **5 Optimised**

Nr	Statement	Weight
1	A continuous quality improvement process is developed for updating organisationwide monitoring standards and policies and incorporating industry good practices.	5
2	All monitoring processes are optimised and support organisationwide objectives.	5
3	Business-driven metrics are routinely used to measure performance and are integrated into strategic assessment frameworks, such as the IT balanced scorecard.	5
4	Process monitoring and ongoing redesign are consistent with organisationwide business process improvement plans.	5
5	Benchmarking against industry and key competitors becomes formalised, with well-understood comparison criteria.	5

Total Weight | 25

Assessment Status | **Draft**

LINK | **Back to Assessment Overview**

Do you agree...	To some degree				Relative Importance
	Not at all	A little	To some degree	Completely	
					0.00
x					0.00
					0.00
x					0.00

ME1

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	0.80	1.00	0.80
2	0.41	1.00	0.41
3	0.46	1.00	0.46
4	0.38	1.00	0.38
5	0.40	1.00	0.40

Maturity Level = 2.44

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
			x	5.00	
			x	5.00	
			x	5.00	
			x	5.00	
x				0.00	

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
	x			1.65	
	x			1.65	
		x		1.65	
			x	3.30	

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
			x	3.30	
	x			1.65	
	x			1.65	
	x			1.65	
			x	5.00	
x				0.00	
			x	5.00	
				0.00	

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
			x	3.30	
	x			1.65	
	x			1.65	
	x			1.65	
	x			1.65	
	x			1.65	
	x			1.65	

Do you agree...					Relative Importance
Not at all	A little	To some degree	Completely		
	x			1.65	
	x			1.65	
		x		3.30	
	x			1.65	
x				1.65	

Process | **ME2 Monitor and Evaluate Internal Control**

Management of the process of *Monitor and evaluate internal control* that satisfies the business requirement for IT of protecting the achievement of IT objectives and complying with IT-related laws, regulations and contracts is:

Maturity Level | **0 Non-existent**

Nr	Statement	Weight
1	The organisation lacks procedures to monitor the effectiveness of internal controls.	5
2	Management internal control reporting methods are absent.	5
3	There is a general unawareness of IT operational security and internal control assurance.	5
4	Management and employees have an overall lack of awareness of internal controls.	5

Total Weight | 20

Maturity Level | **1 Initial/Ad Hoc**

Nr	Statement	Weight
1	Management recognises the need for regular IT management and control assurance.	5
2	Individual expertise in assessing internal control adequacy is applied on an ad hoc basis.	5
3	IT management has not formally assigned responsibility for monitoring the effectiveness of internal controls.	5
4	IT internal control assessments are conducted as part of traditional financial audits, with methodologies and skill sets that do not reflect the needs of the information services function.	5

Total Weight | 20

Maturity Level | **2 Repeatable but Intuitive**

Nr	Statement	Weight
1	The organisation uses informal control reports to initiate corrective action initiatives.	5
2	Internal control assessment is dependent on the skill sets of key individuals.	5
3	The organisation has an increased awareness of internal control monitoring.	5
4	Information service management performs monitoring over the effectiveness of what it believes are critical internal controls on a regular basis.	5
5	Methodologies and tools for monitoring internal controls are starting to be used, but not based on a plan.	5
6	Risk factors specific to the IT environment are identified based on the skills of individuals.	5

Total Weight | 30

Maturity Level | **3 Defined**

Nr	Statement	Weight
1	Management supports and institutes internal control monitoring.	5
2	Policies and procedures are developed for assessing and reporting on internal control monitoring activities.	5
3	An education and training programme for internal control monitoring is defined.	5
4	A process is defined for self-assessments and internal control assurance reviews, with roles for responsible business and IT managers.	5
5	Tools are being utilised but are not necessarily integrated into all processes.	5
6	IT process risk assessment policies are being used within control frameworks developed specifically for the IT organisation.	5
7	Process-specific risks and mitigation policies are defined.	5

Total Weight | 35

Maturity Level | **4 Managed and Measurable**

Nr	Statement	Weight
1	Management implements a framework for IT internal control monitoring.	5
2	The organisation establishes tolerance levels for the internal control monitoring process.	5
3	Tools are implemented to standardise assessments and automatically detect control exceptions.	5
4	A formal IT internal control function is established, with specialised and certified professionals utilising a formal control framework endorsed by senior management.	5
5	Skilled IT staff members are routinely participating in internal control assessments.	5
6	A metrics knowledge base for historical information on internal control monitoring is established.	5
7	Peer reviews for internal control monitoring are established.	5

Total Weight | 35

Maturity Level | **5 Optimised**

Nr	Statement	Weight
1	Management establishes an organisationwide continuous improvement programme that takes into account lessons learned and industry good practices for internal control monitoring.	5
2	The organisation uses integrated and updated tools, where appropriate, that allow effective assessment of critical IT controls and rapid detection of IT control monitoring incidents.	5
3	Knowledge sharing specific to the information services function is formally implemented.	5
4	Benchmarking against industry standards and good practices is formalised.	5

Total Weight | 20

Assessment Status | **Draft**

LINK | **Back to Assessment Overview**

Not at all	A little	To some degree	Completely	Relative Importance
x				0.00
x				0.00
		x		3.30
x				0.00

Do you agree...				Relative Importance
			x	
	x			1.65
	x			1.65
			x	5.00

Do you agree...				Relative Importance
			x	
	x			1.65
			x	5.00
	x			1.65
	x			1.65
	x			1.65

Do you agree...				Relative Importance
			x	
			x	5.00
		x		3.30
		x		3.30
	x			1.65
	x			1.65
		x		3.30

Do you agree...				Relative Importance
			x	
		x		3.30
x				0.00
x				0.00
	x			1.65
	x			1.65
	x			1.65

Do you agree...				Relative Importance
	x			
x				0.00
		x		1.65
x				0.00

ME2 Monitor and Evaluate Internal

Level	Compliance	Contribution	Value
0	0.17	0.00	0.00
1	0.67	1.00	0.67
2	0.55	1.00	0.55
3	0.66	1.00	0.66
4	0.38	1.00	0.38
5	0.17	1.00	0.17

Maturity Level = 2.42

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process	ME3 Ensure Compliance With External Requirements
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Management of the process of *Ensure compliance with external requirements* that satisfies the business requirement for IT of ensuring compliance with laws, regulations and contractual requirements is:

Maturity Level	0 Non-existent
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Nr	Statement	Weight
1	There is little awareness of external requirements that affect IT, with no process regarding compliance with regulatory, legal and contractual requirements.	5
Total Weight		5

Maturity Level	1 Initial/Ad Hoc
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Nr	Statement	Weight
1	There is awareness of regulatory, contractual and legal compliance requirements impacting the organisation.	5
2	Informal processes are followed to maintain compliance, but only as the need arises in new projects or in response to audits or reviews.	5
Total Weight		10

Maturity Level	2 Repeatable but Intuitive
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Nr	Statement	Weight
1	There is an understanding of the need to comply with external requirements, and the need is communicated.	5
2	Where compliance is a recurring requirement, as in financial regulations or privacy legislation, individual compliance procedures have been developed and are followed on a year-to-year basis.	5
3	There is, however, no standard approach.	5
4	There is high reliance on the knowledge and responsibility of individuals, and errors are likely.	5
5	There is informal training regarding external requirements and compliance issues.	5
Total Weight		25

Maturity Level	3 Defined
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Nr	Statement	Weight
1	Policies, plans and procedures are developed, documented and communicated to ensure compliance with regulations and contractual and legal obligations, but some may not always be followed, and some may be out of date or impractical to implement.	5
2	There is little monitoring performed and there are compliance requirements that have not been addressed.	5
3	Training is provided in external legal and regulatory requirements affecting the organisation and the defined compliance processes.	5
4	Standard <i>pro forma</i> contracts and legal processes exist to minimise the risks associated with contractual liability.	5
Total Weight		20

Maturity Level	4 Managed and Measurable
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Nr	Statement	Weight
1	Issues and exposures from external requirements and the need to ensure compliance at all levels are fully understood.	5
2	A formal training scheme is in place to ensure that all staff members are aware of their compliance obligations.	5
3	Responsibilities are clear and process ownership is understood.	5
4	The process includes a review of the environment to identify external requirements and ongoing changes.	5
5	There is a mechanism in place to monitor non-compliance with external requirements, enforce internal practices and implement corrective action.	5
6	Non-compliance issues are analysed for root causes in a standard manner, with the objective to identify sustainable solutions.	5
7	Standardised internal good practices are utilised for specific needs, such as standing regulations and recurring service contracts.	5
Total Weight		35

Maturity Level	5 Optimised
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Nr	Statement	Weight
1	A well-organised, efficient and enforced process is in place for complying with external requirements, based on a single central function that provides guidance and co-ordination to the whole organisation.	5
2	Extensive knowledge of the applicable external requirements, including their future trends and anticipated changes, and the need for new solutions exist.	5
3	The organisation takes part in external discussions with regulatory and industry groups to understand and influence external requirements affecting them.	5
4	Good practices are developed ensuring efficient compliance with external requirements, resulting in very few cases of compliance exceptions.	5
5	A central, organisationwide tracking system exists, enabling management to document the workflow and to measure and improve the quality and effectiveness of the compliance monitoring process.	5
6	An external requirements self-assessment process is implemented and refined to a level of good practice.	5
7	The organisation's management style and culture relating to compliance are sufficiently strong, and processes are developed well enough for training to be limited to new personnel and whenever there is a significant change.	5
Total Weight		35

Assessment Status	Draft
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LINK [Back to Assessment Overview](#)

Not at all	A little	To some degree	Completely	Relative Importance
Do you agree...				0.00
x				

Do you agree...				Relative Importance
			x	5.00
			x	5.00

Do you agree...				Relative Importance
			x	5.00
x				0.00
			x	5.00
			x	5.00

Do you agree...				Relative Importance
			x	5.00

Do you agree...				Relative Importance
			x	5.00
x				0.00

Do you agree...				Relative Importance
x				0.00

ME3 Ensure Compliance With External Requirements			
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Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	0.80	1.00	0.80
3	1.00	1.00	1.00
4	0.14	1.00	0.14
5	0.00	1.00	0.00

Maturity Level =	2.94
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Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

Process ME4 Provide IT Governance

Management of the process of Provide IT governance that satisfies the business requirement for IT of integrating IT governance with corporate governance objectives and complying with laws, regulations and contracts is:

Maturity Level 0 Non-existent

Nr	Statement	Weight
1	There is a complete lack of any recognisable IT governance process.	5
2	The organisation does not even recognise that there is an issue to be addressed; hence, there is no communication about the issue.	5

Total Weight 10

Maturity Level 1 Initial/Ad Hoc

Nr	Statement	Weight
1	There is recognition that IT governance issues exist and need to be addressed.	5
2	There are ad hoc approaches applied on an individual or case-by-case basis.	5
3	Management's approach is reactive, and there is only sporadic, inconsistent communication on issues and approaches to address them.	5
4	Management has only an approximate indication of how IT contributes to business performance.	5
5	Management only reactively responds to an incident that has caused some loss or embarrassment to the organisation.	5

Total Weight 25

Maturity Level 2 Repeatable but Intuitive

Nr	Statement	Weight
1	There is awareness of IT governance issues.	5
2	IT governance activities and performance indicators, which include IT planning, delivery and monitoring processes, are under development.	5
3	Selected IT processes are identified for improvement based on individual decisions.	5
4	Management identifies basic IT governance measurements and assessment methods and techniques; however, the process is not adopted across the organisation.	5
5	Communication on governance standards and responsibilities is left to the individual.	5
6	Individuals drive the governance processes within various IT projects and processes.	5
7	The processes, tools and metrics to measure IT governance are limited and may not be used to their full capacity due to a lack of expertise in their functionality.	5

Total Weight 35

Maturity Level 3 Defined

Nr	Statement	Weight
1	The importance of and need for IT governance are understood by management and communicated to the organisation.	5
2	A baseline set of IT governance indicators is developed where linkages between outcome measures and performance indicators are defined and documented.	5
3	Procedures are standardised and documented.	5
4	Management communicates standardised procedures, and training is established.	5
5	Tools are identified to assist with overseeing IT governance.	5
6	Dashboards are defined as part of the IT balanced business scorecard.	5
7	However, it is left to the individual to get training, follow the standards and apply them.	5
8	Processes may be monitored, but deviations, while mostly being acted upon by individual initiative, are unlikely to be detected by management.	5

Total Weight 40

Maturity Level 4 Managed and Measurable

Nr	Statement	Weight
1	There is full understanding of IT governance issues at all levels.	5
2	There is a clear understanding of who the customer is, and responsibilities are defined and monitored through SIAs.	5
3	Responsibilities are clear and process ownership is established.	5
4	IT processes and IT governance are aligned with and integrated into the business and the IT strategy.	5
5	Improvement in IT processes is based primarily upon a quantitative understanding, and it is possible to monitor and measure compliance with procedures and process metrics.	5
6	All process stakeholders are aware of risks, the importance of IT and the opportunities it can offer.	5
7	Management defines tolerances under which processes must operate.	5
8	There is limited, primarily tactical, use of technology, based on mature techniques and enforced standard tools.	5
9	IT governance has been integrated into strategic and operational planning and monitoring processes.	5
10	Performance indicators over all IT governance activities are being recorded and tracked, leading to enterprise-wide improvements.	5
11	Overall accountability of key process performance is clear, and management is rewarded based on key performance measures.	5

Total Weight 55

Maturity Level 5 Optimised

Nr	Statement	Weight
1	There is an advanced and forward-looking understanding of IT governance issues and solutions.	5
2	Training and communication are supported by leading-edge concepts and techniques.	5
3	Processes are refined to a level of industry good practice, based on results of continuous improvement and maturity modelling with other organisations.	5
4	The implementation of IT policies leads to an organisation, people and processes that are quick to adapt and fully support IT governance requirements.	5
5	All problems and deviations are root cause analysed, and efficient action is expediently identified and initiated.	5
6	IT is used in an extensive, integrated and optimised manner to automate the workflow and provide tools to improve quality and effectiveness.	5
7	The risks and returns of the IT processes are defined, balanced and communicated across the enterprise.	5
8	External experts are leveraged and benchmarks are used for guidance.	5
9	Monitoring, self-assessment and communication about governance expectations are pervasive within the organisation, and there is optimal use of technology to support measurement, analysis, communication and training.	5
10	Enterprise governance and IT governance are strategically linked, leveraging technology and human and financial resources to increase the competitive advantage of the enterprise.	5
11	IT governance activities are integrated with the enterprise governance process.	5

Assessment Status Draft

Back to Assessment Overview

Not at all	A little	To some degree	Completely	Relative Importance
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.00

ME4 Provide IT Governance

Level	Compliance	Contribution	Value
0	0.00	0.00	0.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	0.83	1.00	0.83
4	0.54	1.00	0.54
5	0.21	1.00	0.21

Maturity Level = 3.58

Instructions: A relative Weight between 0 and 10 should be allocated for each statement, and then an 'x' is used to indicate which statement is applicable.

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Do you agree...				Relative Importance
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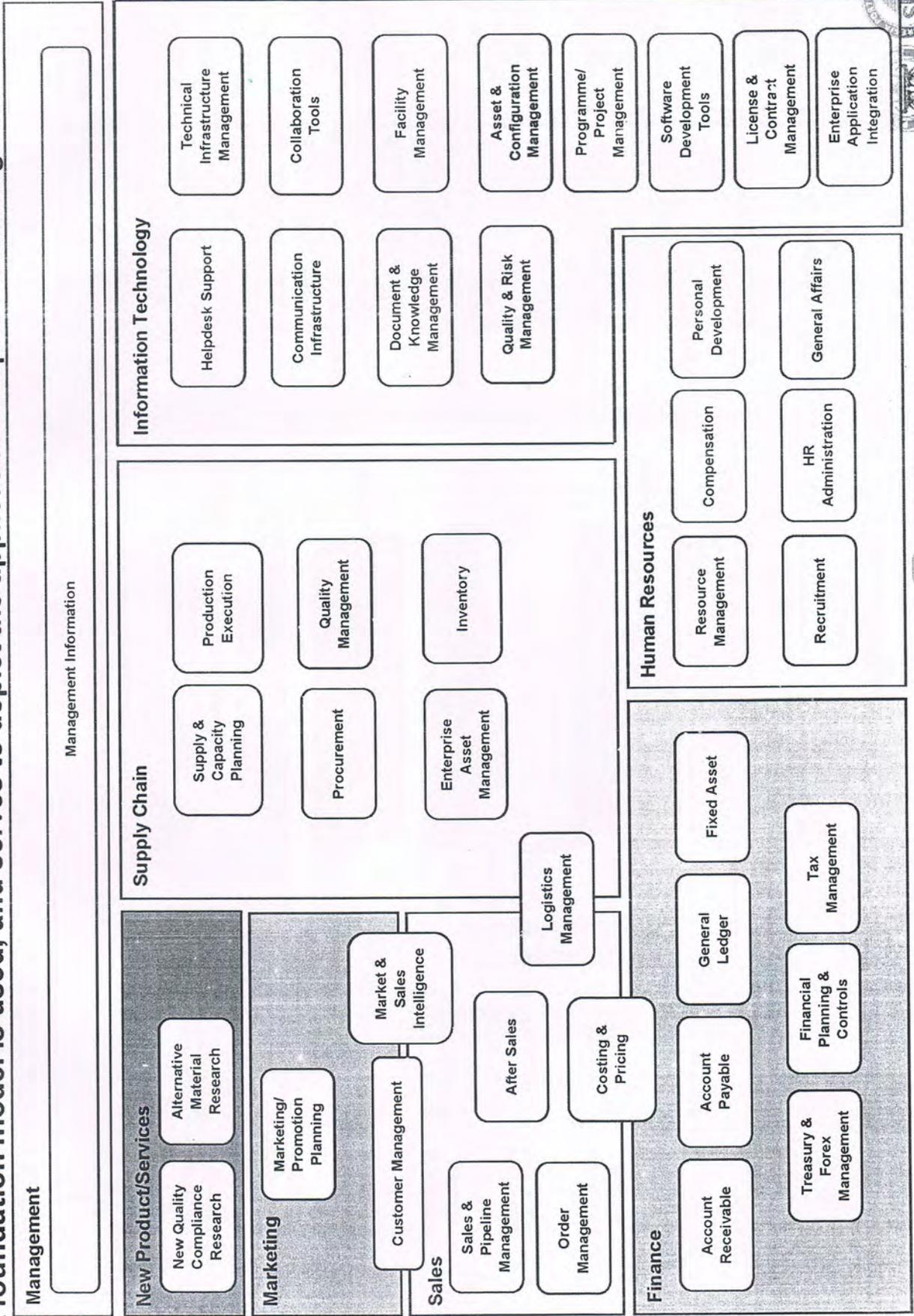
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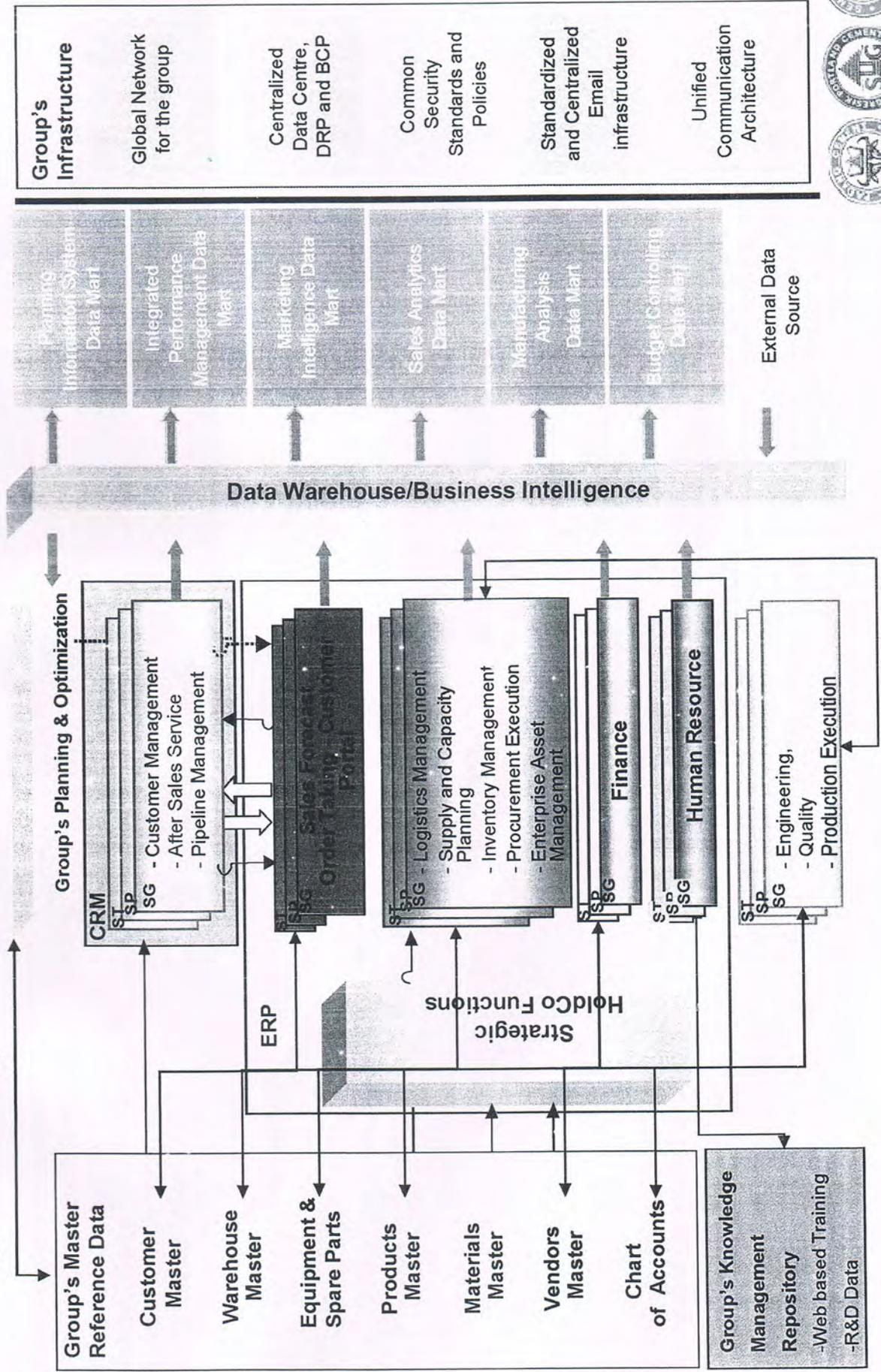
Foundation Model

A foundation model is used, and serves to depict the application footprint of the organization.



Target Operating Model

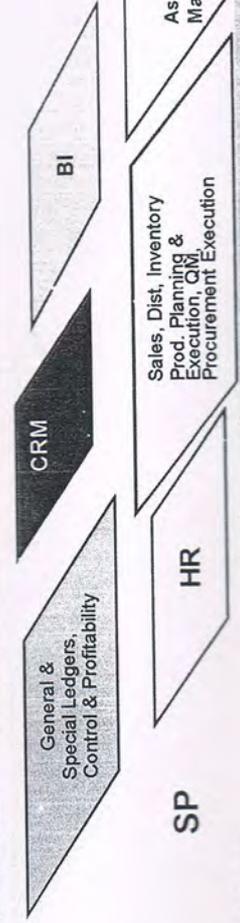
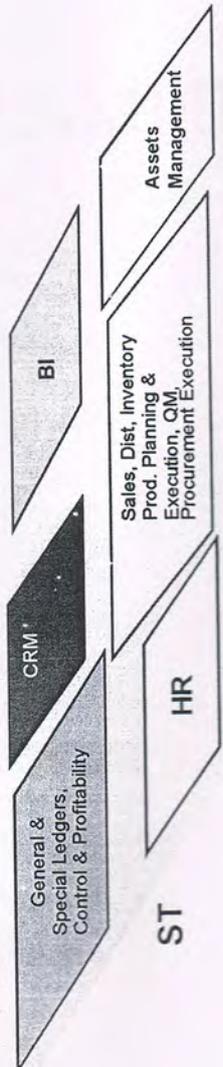
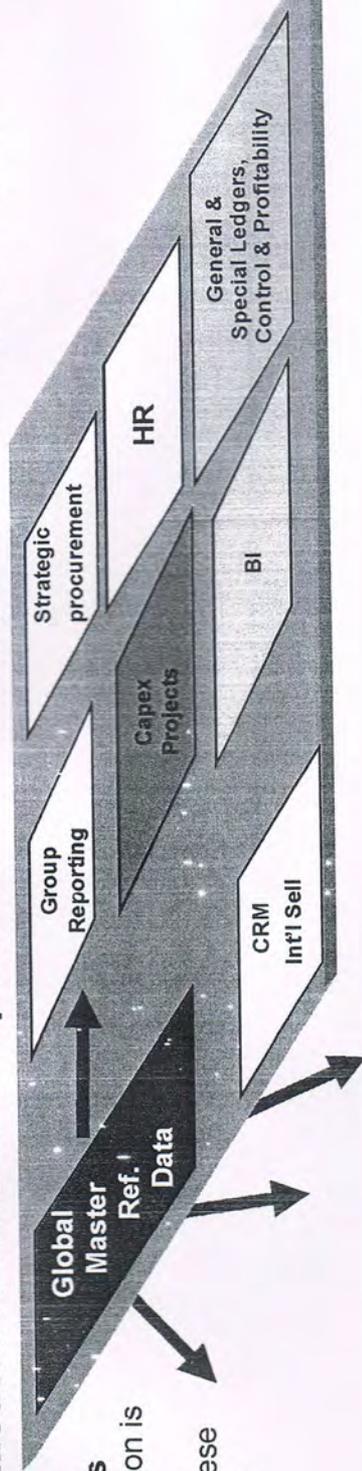
A scalable and integrated Target Operating Model is required to enable SGG to support its future business growth strategy.



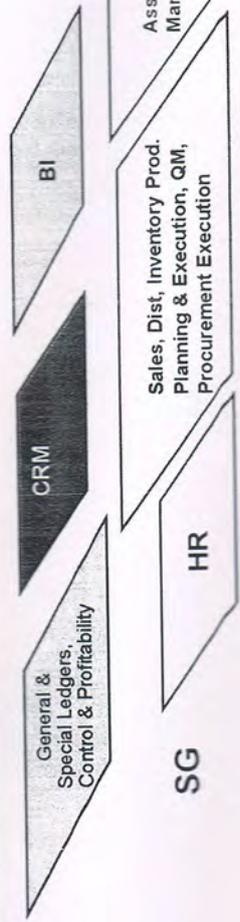
Target Operating Model – HoldCo vs. OpCos

The Target Operating Model addresses the requirements for both OpCos and HoldCo perspective.

Holding Company Functions
 Holding Company's participation is expected for those functions highlighted. Going forward these functions will be supported by Target Operating Model



Operating Company Functions
 Operating Companies participation is expected for those functions highlighted. Going forward these functions will be supported by Target Operating Model

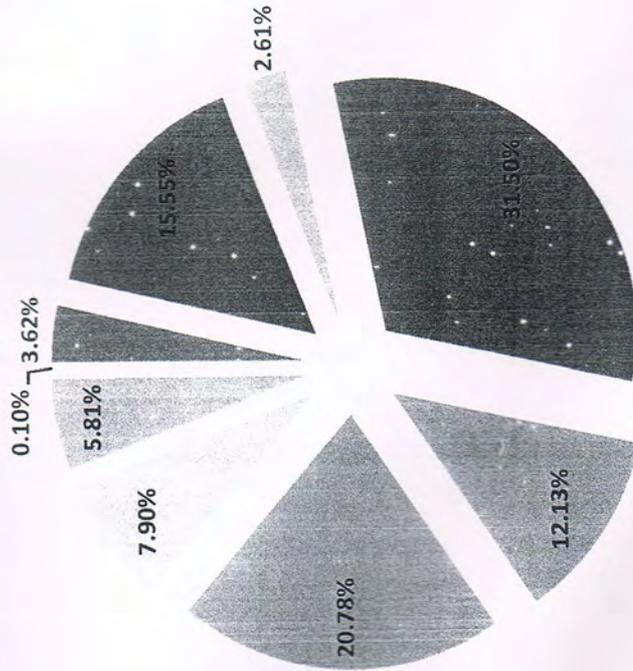


Note :- Roles and Responsibilities of each functions relative to HoldCo and OpCos are subject to SGG virtualization and centralization program



MARKET SHARE PENGADAAN SEMEN INDONESIA TAHUN 2011

Semen Andalas	Semen Holcim	Semen Baturaja	Semen Tigaroda	Semen Padang	Semen Gresik	Semen Tonasa	Semen Bosowa	Semen Kupang	Semen Gresik Group (SG, SP, ST)	TOTAL
3.62%	15.55%	2.61%	31.50%	12.13%	20.78%	7.90%	5.81%	0.10%	40.80%	100.00%



Total market share
SGG (SG 20,78% + SP
12,13% + ST 7,90%)
adalah 40,80%

- Semen Andalas
- Semen Holcim
- Semen Baturaja
- Semen Tigaroda
- Semen Padang
- Semen Gresik
- Semen Tonasa
- Semen Bosowa
- Semen Kupang