18.   MALAYSIAN HR MARKET OVERVIEW

(Prepared for inclusion in this Prospectus)

I N T E R N A T I O N A L   D A T A   C O R P O R A T I O N

24 October 2005

The Board of Directors
KZen Solutions Berhad
Suite B-07-07, 7th Floor, Block B
Plaza Mont Kiara
Jalan Kiara
50480 Kuala Lumpur

Dear Sir,

Purpose of IDC Data Tables and Industry Document Write-up

In accordance to KaiZenHR Sdn Bhd's agreement with IDC dated April 6, 2005 the following deliverables to KaiZenHR Sdn Bhd were prepared for Submission to the Securities Commission in conjunction with KZen Solutions Berhad's Initial Public Offering ("IPO") on Bursa Malaysia Securities Berhad. The following report was prepared by us for the inclusion in the prospectus of KZen Solutions Berhad to be dated 7 November 2005, in relation to it's listing on the MESDAQ Market of Bursa Malaysia Securities Berhad.

> 1. Industry Document Write-up
> Two to three pages long Industry Write-up that includes: -
> -HR Software market and components of HR software industry.
> -HR Software trends in Malaysia.
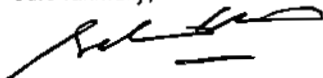> -HR Software adoption, drivers and inhibitors in Malaysia.
>
> 2. Data Tables (To include KaiZenHR's figures where applicable)
> -Malaysia Human Resource Management Market by Vendors, 2003 and 2004 (US$M)
> -Malaysia Payroll Market by Vendors, 2003 and 2004 (US$M)
> -Malaysia Human Resource Management Market by Vertical, 2003 and 2004 (US$M)
> -Malaysia Human Resource Management and Payroll Market Forecast, 2004-2009 (US$M)

The content of these report(s) were used to supplement the submission documents, and were not meant to be a full Independent Market Research (IMR) Report. IDC is the author of these documents, and the data derived from these documents are from IDC's Semi-Annual Software Tracker and Continuous Intelligence Services. They are bound by IDC's copyright and terms of use, as detailed in the report(s) that the client has purchased.

These reports were prepared in the month of April 2005 when the client engaged IDC. At the time of this letter, changes have been made to the vendors ranking in October 2005. However, these changes have not resulted in any changes in the overall market size and forecast of the HR software market from IDC's Software Tracker, which this report is based on.

Yours faithfully,

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Selinna Chin
Managing Director
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IDC

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EXCERPT

Malaysian HR Market Overview

Jun-Fwu Chin   Linus Lai

Prepared for inclusion in this Prospectus

IN THIS STUDY

Methodology

IDC's industry analysts have been measuring and forecasting IT markets for more than 30 years. IDC's software industry analysts have been delivering analysis and prognostications for packaged software markets for more than 25 years.

The actual strategy incorporates information from four different but interrelated sources:

☑ **IDC's Bi-annual software tracker.** IDC tracks vendors' movement across eight strategic country markets: Australia, China, India, Korea, Taiwan, Hong Kong, Malaysia, and Singapore, on a six-month basis. The track covers 7 strategic secondary software markets: Information access and delivery, back-office enterprise applications, customer relationship management applications, network management software, system management software, storage software, and security software.

☑ **IDC's Software Census interviews.** IDC interviews all significant market participants to determine product revenue, revenue demographics, pricing, and other relevant information.

☑ **Product briefings, press releases, and other publicly available information.** IDC's software analysts meet with hundreds of software vendors each year. These briefings provide an opportunity to review current and future product strategies, revenue, shipments, customer bases, target markets, and other key product information.

☑ **Vendor financial statements and related filings.** Although many software vendors are privately held and choose to limit financial disclosures, information from publicly held companies provide a significant benchmark for assessing informal market estimates from private companies. IDC maintains an extensive library of financial and corporate information focused on the IT industry. We further maintain detailed revenue by product area models on more than 1,100 worldwide vendors.

☑ **IDC demand-side research.** This includes thousands of interviews annually and provides a powerful fourth perspective for assessing competitive performance. IDC's user strategy databases offer a compelling and consistent time-series view of industry trends and developments. Direct conversations with technology buyers provide an invaluable complement to the broader survey-based results.

Ultimately, the data presented herein represents IDC's best estimates based on the above data sources, reported and observed activity by vendor, and further modeling of data that we believe to be true to fill in any information gaps.

Note: All numbers in this document may not be exact due to rounding.

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SITUATION OVERVIEW

Definitions

Before we look at the Malaysian HR (Human Resource) Software Market, we need to define package software as well as Human Resource Management (HRM) and Payroll software.

What Is Packaged Software?

How does IDC identify the companies it measures and the resulting value of the markets? Our objective is to define companies and markets that are relevant for market research purposes — not for legal or accounting purposes nor simply for publishing historic lists. Clearly, many companies have software and other types of business units; this taxonomy is not about deciding on the relative strengths of these business units and applying a single label to the entire company.

The question therefore is: When does a company market and deploy software that should be counted as such for market-research purposes?

Packaged software is programs or code sets of any type commercially available through sale, lease, rental, or as a service. Packaged software revenue typically includes fees for initial and continued right-to-use packaged software licenses. These fees may include, as part of the license contract, access to product support and/or other services that are inseparable from the right-to-use license fee structure, or this support may be priced separately. Upgrades may be included in the continuing right of use or may be priced separately. All of the above are counted by IDC as packaged software revenue.

Packaged software revenue excludes service revenue derived from training, consulting, and system integration that is separate (or unbundled) from the right-to-use license but does include the imputed value of software included in a service that offers software functionality by a different pricing scheme (as described below in more detail).

Increasingly, packaged (also called bespoke) software is also being marketed and deployed on a rental, leased, subscription, and transaction basis, as well as via other arrangements (e.g., for "free" with the packaged software's "owner" taking a percentage of the revenue enabled by the software as implicit "product" revenue), some of which do not involve a license. Furthermore, we must not be limited by accounting directives (for example, SOP 97-2, which has been approved by AICPA and FASB) because this would neglect to count large segments of software markets in a way that accurately reflects market dynamics.

IDC's Software Market Forecaster research database includes revenue from a company if the company competes in a packaged software market defined in the taxonomy. From the market research standpoint, this is the most important question. Software revenue is defined in terms of two types of offerings from the viewpoint of the customer:

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☒ The market for software code of a given functionality sold as such, typically via a perpetual license

☒ The market for software code bundled and marketed in another way (e.g., an application service) that competes with products sold as software code

To be classified as packaged software revenue attributed to a company in the Software Market Forecaster research database, all of the following have to be true:

☒ **Ownership of intellectual property.** ASPs that do not own the software code (e.g., Corio and US internetworking) are not software vendors but channels for software vendors. However, some vendors own the code and also provide an ASP offering (e.g., Oracle and PeopleSoft). In this case, IDC imputes a value for the software provided in that manner.

☒ **Product is replicated.** Software companies assemble a package of code from components and "sell" multiple copies in a one-to-many business model. The software product is replicated to support that model. Even though it may be customized as it is being installed, when the customization capability is an attribute built into the code, it is still considered replicated. Value-added resellers (VARs) do customization to packaged software, often on a one-to-one basis. In this case, VARs are a channel for the software. When a company takes code, adds its own changes, and sells the resulting package substantially as changed to many customers, it is — in turn — an ISV that resells or OEMs components and adds value. (In these cases, IDC estimates the pass-through revenue, deducts it from the reseller, and attributes it to the original owner of the intellectual property so as not to double count revenue and artificially inflate the size of the software market).

☒ **Competitive domain includes packaged software companies that license intellectual property rights to functionally similar software code.** There are companies that offer to their customers packaged software functionality not via a right-to-use license but as a "service" that is wholly or partially based on software functionality. In this case, the question becomes, Does the company compete with packaged software companies that provide the same functionality? If so, a significant part of the basis of competition is the functionality of the software. Thus, there is a software component of the service company's revenue stream, and the value of the software must be "imputed" or "attributed" and subtracted from the commingled revenue stream. Counting becomes difficult if the commingled product never has had a history of standalone software sales, and thus there is no requirement (from accounting rules) for imputed revenue on the income statement. This accounting rule does not change the market dynamics — as far as the customer is concerned, services with the same functionality are available as substitutes for licensed software products, and IDC must account for this in our estimate of the size of the software market. This procedure has been used by IDC in the operating system market for many years when operating system revenue is bundled with hardware platforms. The operating system is an important part of the value of the competitive hardware offering. Software vendors sometimes do not offer the same functionality in standalone form.

Human Resource Management

Human resource management applications software automates business processes that cover the entire span of an employee's relationship with the corporation (as opposed to the department or group to which the employee belongs) as well as management of other human resources used by the enterprise (e.g., contingent labor, contractors, and consultants), including — increasingly — human resources employed by suppliers and customers. The packaged application functionality involves résumé tracking, recruitment, applicant tracking, training scheduling (but not any actual elearning or computer-based training software), skills inventory management, compensation analysis, career and succession planning, government compliance, time and attendance management, and workforce scheduling.

Payroll

The functionality involves payroll processing and other labor-related payments, including tracking of stock option compensation and other incentive-based compensation techniques.

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Introduction to the HR Software Market

The marketplace can be divided according to services focus on specific processes within the HR function. This HR value chain (see Figure 1) includes:

☒ **Recruiting and staffing services.** These include executive and middle management search services, permanent hiring services, temporary and contingent staffing services, erecruiting job boards, end-to-end erecruiting service providers, testing and selection services, salary benchmarking services, background check services, and outplacement services.

☒ **Core HR management services.** These include services in the administration of payroll and payroll tax, health and welfare benefits administration, pension and retirement benefits administration, employee and manager self-service delivery, employee communications design and administration, and services related to supporting the employee portal.

☒ **Performance management services.** These include services in employee competency testing and assessment, employee satisfaction surveys, performance reviews and appraisals, variable compensation design, tracking and administration, career planning and employee mobility, and leadership and succession planning.

☒ **Learning and development services.** These include the services that provide the learning content itself, the provisioning and support of the information technology infrastructure necessary to deliver and manage that content, and the professional services required to develop, deploy, manage, execute, and support a learning solution.

FIGURE 1

Major Elements Within the HR Value Chain
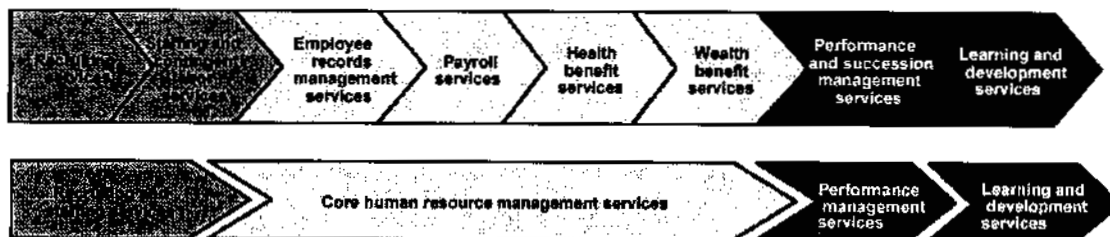
Source: IDC, 2005

IDC understands KaiZenHR software products are positioned at the "Core human resource management services" part of the value chain.

18.   **MALAYSIAN HR MARKET OVERVIEW** *(Cont'd)*

Trends in the Worldwide HR market

Vendor consolidations

The last 18 months capped a period of tumultuous changes in the HR applications market, where consolidations were sweeping through the industry:

☑ In June 2003, Oracle launched a hostile bid to acquire PeopleSoft, in part because of its "best-of-breed human resources applications," in the words of its CEO Larry Ellison.

☑ In June 2003, ADP (Automatic Data Processing) completed the acquisition of ProBusiness, cementing its position as the leading payroll processing service provider with an eye toward making a bigger play in the applications space.

☑ In June 2003, Ultimate acquired Hireworks to extend eRecruiting offerings.

☑ In May 2003, Hewitt Associates, an HR outsourcing and consulting firm, acquired Cyborg in a move that would be viewed as a direct competition of its partner PeopleSoft in the HR applications space.

☑ In March 2003, Geac completed the acquisition of Extensity, which offered a number of time and expense reporting applications.

☑ In December 2002, SSA GT acquired Infinium, which, in addition to its ERP solutions, specializes in HRMS applications for the services industry such as healthcare and hospitality. That acquisition was followed by SSA's move in June 2003 to buy Baan, the European ERP vendor that also has a sizable number of customers using its HR products.

☑ Starting in November 2002, Kronos in successive moves acquired three of its resellers - Hi-Tek Special Systems, DataPro Solutions, and Ban-koe Systems - to clean up its channel and ensure greater control of its maintenance revenue stream.

☑ In early 2002 Intuit acquired CBS Payroll to shore up its position as a viable alternative to Microsoft Business Solutions in the midmarket ERP market.

All these vendor consolidations show that the HR application market worldwide has reached a saturation point, where the vendors have to acquire in order to grow further.

Midmarket "Land Grab"

Led by SAP, ERP vendors are on a mission to conquer the midmarket because of the cautious technology investment sentiments expressed by their largest customers.

Because these large enterprises have held off or slashed their software budget, the midmarket has become increasingly attractive to ERP vendors like SAP. In March 2003, SAP launched SAP Business One in the United States, which aims to address the ERP needs of small and medium-sized companies through a combination of

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software templates, accelerated deployment, and affordable software prices. In the fall of 2003, Oracle is expected to announce a number of initiatives focusing on the value of its 11i suite to medium-sized companies, following its recent price drops to stimulate demand. PeopleSoft is doing the same with its recent unveiling of 13 new midmarket solutions designed specifically for companies with $50 million to $500 million in annual revenue. These solutions are fixed price, and they can be implemented in a couple of months, helping companies automate such functions as human resources, payroll, and operations management.

The reason vendors are moving into the mid-market is because they have already established their presence in the large enterprise market.

Worldwide Software Prices

As the world awaits a long overdue economic recovery, payroll and human resources management applications vendors are doing their part to stimulate the demand by slashing prices.

In April 2003, Oracle dropped the prices of its 11i ERP suite by as much as 42%. For example, a 1,000-person firm now pays a license fee of US$442,000 for such Oracle applications as Marketing, Purchasing, Project Costing, and Human Resource, compared with US$760,000 in the past.

Ultimate Software is shifting away from a traditional software license model to a recurring revenue stream that prices its full set of payroll and human resources applications for US$5 per employee per month.

Corporate Disclosure

One of the major selling points of human resources management applications is its ability to capture, store, and analyze internal competency and compensation data that would often be out of reach of users that rely on outsourcing these functions. As software becomes more versatile, linking a variety of departments through intuitive workflow, it has convinced many users that having accurate payroll and HR data is worth the price of assigning one or two of their people to run these applications.

In addition, the onslaught of industry-specific, regulatory, and compliance issues has forced many companies to revisit their accounting, financial, and human resources systems to make sure they are trustworthy, flexible, and scalable enough to help them meet those increasingly complex compliance requirements. In United Kingdom for example, it is now a requirement for companies there to include a Human Capital Management Report in their Annual Report.

The ISO 14000 and 9000 series promote recording and reporting of competency development and people development as part of process to the deliver a product or services that meet the customer's quality requirements (ISO 9000) or environmental management (ISO 14000).

Construction companies, for example, have until recently failed to incorporate into their HR systems safety requirements mandated by the U.S. Occupational Safety Health Administration (OSHA), but once they do, they immediately discover the

benefits of extending and implementing the work rules at their job sites, which could avoid paying fines of tens of thousands of dollars for minor infractions on surprise visits by OSHA inspectors.

Finally, companies recognize the limitations of payroll outsourcers, which invariably fail to address their unique business practices with customization and configuration features lacking. If companies want to stay competitive in their industry, an in-house payroll and HR system may well be the long-term solution, giving them a greater degree of control of their destiny.

Governance Post Enron

The fall out of the Enron and Worldcom bankruptcies has placed an increasing emphasis on the accuracy and ability of organizations and their auditors to accurately report the financial health of the organization. Organizational complexity is not an excuse for inaccuracy and therefore a growing requirement is emerging for systems able to measure and report the true cost to organizations of running business processes and their impact on the bottom line. Legislation passed both in the U.S. (under the Sarbanes-Oxley Act) and in Europe will require CFOs and CEOs to personally certify the accuracy and validity of their accounts and punish those who ill-advisedly or inappropriately approve accounts with heavy custodial sentences. This will surely affect the worldwide markets as well.

Market Accelerators and Inhibitors in Malaysia

In Malaysia, the growth of HRM and Payroll applications are affected by the following market accelerators and inhibitors:

Market Accelerators

☑ Growing interest in HR measurement and scorecarding. Functional areas are expected to be run as a business. This is easier for some functions such as finance and operations, which have systems and measures in place and are thought of as strategic within an organization. Yet, while finance is the strategic complement to accounting and marketing is the strategic complement to sales, HR straddles both strategic and administrative responsibilities. As outsourcing takes over more transactional and administrative processes, HR is struggling to define and evolve into a new and strategic entity. One avenue being explored is the area of HR measurement and scorecarding. This deals with the aligning of HR activities with business goals and the application of the rigors of financial measurement and management to individual and organizational performance.

☑ The availability of vertical solutions with industry-best practices will promote the adoption of these solutions by industries. Most major vendors are enhancing their core applications with various industry-best practices such as those in the utilities, pharmaceutical, automotive, healthcare, and public sectors. Hence,

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enterprises will now have tangible justifications for ROI for industry-tailored applications.

☒ Offering off-the-shelf software and quick-implementation solutions such as those of SAP (All-in-One), Oracle (E-business Suite Special Edition) and PeopleSoft Inc. (Accelerated Solution), have drawn interest from SMEs to adopt these technologies. No-frill functionalities are also packaged to fit SME requirements.

☒ Automation gains competitiveness. Organizations now see business process automation or investing on back-office enterprise applications as a way to gain competitive edge or reduce costs in their respective industries. For example, accounting software packages allow organizations to create timely financial information thus lessening intensive manual work.

Market Inhibitors

☒ Consolidation in the industry, especially in the telecommunications and banking sectors will restrict opportunities in the market and lead to more intense competition due to reduced market size. Nonetheless, IDC is of the opinion that the services and manufacturing industries will still present opportunities for HR application suppliers because many companies in these industries are late technology adopters.

☒ Although improving, SMEs' knowledge and implementation of HR applications are still nascent. Opportunities are abundant in this market category but will require time and effort to nurture the urgency of software that will essentially benefit companies.

☒ Outsourcing. HR Outsourcing is an area of opportunity for software vendors as well as HR services practitioners. In this case, it is classified as a market inhibitor for <u>packaged software</u> as it defers upfront payment for software licenses in exchange for a service contract. HR outsourcing, in particular HR BPO (Business Process Outsourcing), continues to become more established as a strategic option for organizations in optimizing HR processes, gaining access to newer technologies, streamlining vendors to HR, and delivering greater measurement and reporting capabilities.

Further key observations in the market are:

☒ Since 2001, the SME sector became the most hotly contested segment of the Malaysia enterprise applications software market. IDC research shows that almost all enterprise applications software vendors are targeting customers in this segment. Success in the SME sector was dependent on the following key factors: functionality of product, price of the product, reputation of the vendor within the SME sector and specific vertical market, and speed of implementation.

☒ The Malaysia enterprise applications software market is maturing and customer acquisition is becoming more difficult. Vendors are advised to focus on meeting the needs of their customers. The latter want evidence on how IT affects the bottom line and so vendors must be able to demonstrate the value and use of the

18.   MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

solutions that they deliver in order to retain their customers. Finally, it is essential that vendors do not take customers and contracts for granted.

☑ Innovativeness and competitiveness in pricing by software vendors will continue and develop further, as the reality of total cost of ownership (TCO) and ROI becomes more apparent and important when enterprise applications are implemented to run businesses. For example, customers could tie their payments to their own business measurements such as the amount of savings and productivity improvements that can be achieved through implementing software applications.

☑ Vendors are targeting quick wins or smaller projects to make up for volume or meet their targets. Application providers repackaged their offerings with attractive pricing and flexible functionalities specifically for SMEs. SMEs now have the option to deploy comprehensive enterprise applications with full functionalities at affordable rates. In addition to this, IDC observed that there is currently more staggered implementation by business processes specific to vertical applications due to two key reasons — either the customer already has a legacy system and is just integrating newer applications or implementing applications according to how strong a differentiating factor they could be to the business.

☑ The Government has enacted the Human Resource Development Act Malaysia to ensure the competency of the Malaysian workforce. Employers are required to contribute 1% of the payroll to the Human Resource Development Fund which will in turn reimburse approved training to the tune of 100% particularly when it is deemed important for the Malaysian economy. Similarly countries such as Singapore and the United Kingdom have the 'Skills Development Fund' and the 'Investors in people' respectively. Please see http://www.iipuk.co.uk/IIP/Internet/default.htm and http://www.sdf.gov.sg/.

The HR market has attracted may IT companies to develop HRMS solutions. As at end of 2004, IDC has counted at least 17 other companies in the MSC who profess to have a HRMS solution. Many of these vendors concentrate on payroll and time and attendance systems. Some of the local competition are:

☑ Alphamatic Systems Sdn Bhd

☑ MRCB Multimedia Consortium Sdn Bhd

☑ Orisoft Technology Berhad

☑ Visual Flex Solutions Sdn Bhd

☑ Click2HR.com (KPMG Technology Sdn Bhd)

☑ I-Power Technologies Sdn Bhd

☑ Aerosoft IT Sdn Bhd

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18.   MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

Global competitors include:

☑ SAP

☑ AUTOMATIC DATA PROCESSING

☑ KRONOS

☑ ORACLE

☑ SAGE GROUP/BEST SOFTWARE

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18. MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

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Packaged software revenue *excludes* service revenue derived from training, consulting, and system integration that is separate (or unbundled) from the right-to-use license but does include the implicit value of software included in a service that offers software functionality by a different pricing scheme (as described directly below in more detail).

Increasingly, packaged software is also being marketed and deployed on a subscription and transaction basis, as well as via other arrangements (e.g., for "free" with the packaged software's "owner" taking a percentage of the revenue enabled by the software as implicit "product" revenue), some of which do not involve a license. Software has also long been available for lease or rent, typically on mainframes. Furthermore, we must not be limited by accounting directives (such as those released by AICPA and FASB) because this would neglect to count large segments of software markets in a way that accurately reflects market dynamics and future opportunity.

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- The market for software code of a given functionality sold as such, typically via a perpetual license

- The market for software code bundled and marketed in another way (e.g., an application service) that competes with perpetually licensed software products

18.   MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

To be classified as packaged software revenue attributed to a company in the Software Market Forecaster research database, *all* of the following have to be true:

Ownership of intellectual property. ASPs that do not own the software code (e.g., Corio) are not software vendors but channels for software vendors. However, some vendors own the code and also provide an ASP offering (e.g., Oracle). In this case, IDC estimates a value for the software provided in that manner. However, in the case of packaged open source software (where there is no "owner" of the intellectual property), revenue is attributed to the distributor.

Product is replicated. Software companies assemble a package of code from components and "sell" multiple copies in a one-to-many business model. The software product is replicated to support that model. Even though it may be customized as it is being installed, when the customization capability is an attribute built into the code, it is still considered replicated. Value-added resellers (VARs) do customization to packaged software, often on a one-to-one basis. In this case, VARs are a channel for the software. When a company takes code and adds its own changes and sells the resulting package substantially as changed to many customers, it is – in turn – an ISV that resells or OEMs components and adds value. (In these cases, IDC estimates the pass-through revenue and deducts it from the reseller and attributes it to the original owner of the intellectual property so as not to double count revenue and artificially inflate the size of the software market.)

Competitive domain includes packaged software companies that license intellectual property rights to functionally similar software code. There are companies that offer to their customers packaged software functionality not via a right-to-use license but as a "service" that is wholly or partially based on software functionality. In this case, the question becomes, Does the company compete with packaged software companies that provide the same functionality? If so, a significant part of the basis of competition is the functionality of the software. Thus, there is a software component of the service company's revenue stream, and the value of the software must be "implicitly derived" or "attributed" and subtracted from the commingled revenue stream. Counting becomes difficult if the commingled product never has had a history of standalone software sales, and thus there is no requirement (from accounting rules) for calling out the revenue on the income statement. This accounting rule does not change the market dynamics – as far as the customer is concerned, services with the same functionality are available as substitutes for licensed software products, and IDC must account for this in our estimate of the size of the software market. This procedure has been used by IDC in the operating system market for many years when operating system revenue is bundled with hardware platforms. The operating system is an important part of the value of the competitive hardware offering. Software vendors sometimes do not offer the same functionality in standalone form.

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General Functional Market Definition

The worldwide software market includes all packaged software revenue across all functional markets or market aggregations.

Primary software markets are the aggregation of the functional markets for applications, application development and deployment (AD&D), and system infrastructure. The three primary markets together make up the worldwide software market.

Secondary software markets are 19 important aggregations that make up IDC's packaged software market taxonomy. These secondary markets are consumer applications, collaborative applications, content applications, enterprise resource management (ERM) applications, supply chain management (SCM) applications, operations and manufacturing applications, engineering applications, customer- relationship management (CRM) applications, information and data management software, application development software, application life-cycle management, application deployment software, other development tools, information access and delivery software, system and network management software, security software, storage software, networking software, and system software. These markets map into the three primary markets and collectively equate to the worldwide software market.

Functional markets are the focal point of IDC's analysis. IDC defines 85 individual functional markets for which it analyzes revenue by vendor, geography, and operating environment. Functional markets also provide the foundation and revenue base for the generation of competitive markets.

Submarkets describe one or more discrete functional areas within a specific market. Although submarket-level data may be reported in selected IDC studies, this level of detail is not recorded in the Software Market Forecaster database.

The table in the next page provides an overview of the functional markets and secondary markets that constitute the applications software markets.

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Consumer Applications	Collaborative Applications	Content Applications	ERM Applications	SCM Applications	Operations and Manufacturing Applications	Engineering Applications	CRM Applications
Consumer Software	Integrated collaborative environment (ICEs)	Content management	Financial applications	Logistics	Services operations management	Mechanical computer-assisted design (CAD)	Sales
	Messaging applications	Authoring software	Human capital management (HCM)	Production planning (PP)	Manufacturing	Mechanical computer-assisted engineering (CAE)	Marketing
	Team collaborative applications (TCAs)	Translation /globalization	Payroll	Inventory Management	Other back office	Mechanical computer-assisted manufacturing (CAM)	Customer service
	Conferencing applications		Procurement			Product information management (PIM)	Contact center
	Other collaborative applications		Order management			Other engineering	
			Business performance management (BPM) and financial analytic applications				
			Project management				
			Enterprise asset management				

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Software Taxonomy Functional Market Changes for 2005

IDC's software functional market taxonomy is updated annually to reflect the dynamic nature of the software marketplace. This section describes the significant structural changes made in 2005. For reference, the previous version of the software taxonomy is documented in IDC's Software Taxonomy, 2004 (IDC #30838, February 2004). Note that in addition to structural changes, some markets were renamed and definitions were updated to reflect the evolution of specific market categories.

Applications Market Changes for 2005

The most extensive taxonomy changes for 2005 are in the enterprise applications space to more accurately reflect how this sector is viewed and categorized in the marketplace. Several markets were combined or aggregated and the secondary market structure was significantly modified. Specifically, the former back-office applications secondary market has been further segmented into multiple secondary markets as follows: enterprise resource management applications, supply chain management applications, and operations and manufacturing applications.

Within enterprise resource management applications:

- Human resource management has been renamed human capital management (HCM).

Payroll

The functionality involves payroll processing and other labor-related payments, including tracking of stock option compensation and other variable and nonvariable payments.

Human Capital Management

Human capital management applications software automates business processes that cover the entire span of an employee's relationship with the corporation (as opposed to the department or group to which the employee belongs) as well as management of other human resources used by the enterprise (e.g., contingent labor, contractors, and consultants), including – increasingly – human resources employed by suppliers and customers. The center of HCM applications suite is designed for core HR functions like personnel records, benefits administration, and compensation. Increasingly these functions are being delivered as employee self- service or manager self-service in order to automate record keeping and updating as well as consolidated reporting.

Globalization, flexible work rules, and the strategic importance of people assets have forced organizations to transform their human resources systems into a more real-time, personalized, and operational intelligence business function that goes beyond the traditional view of aggregating personnel data. Four major segments (or sub markets) are being offered as extensions to core HR functionality, forming the basis of a new generation of HCM applications framework.

18.   MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

eRecruiting

eRecruiting applications are designed to automate the recruitment process through better tracking of applicants, screening and skills assessment, profiling and resume processing, and identifying talents inside or outside the organization.

Key features include:
- Manage skills inventories
- Create and manage job requisitions
- Identify appropriate employment candidates
- Coordinate team collaboration within hiring processes
- Facilitate resource planning
- Deploy workers to appropriate jobs, projects, or teams

Incentive Management

Incentive management applications are designed to automate the process of providing cash and noncash incentives to employees, partners, and external users through advanced modeling, reporting, and built-in interfacing to payroll processing systems.

Key features include:
- Quota and territory management
- Calculation and distribution of commissions, spiffs, royalties, incentives to employees, and channel and business partners
- Compensation analysis using internal and external data for retention risk analysis
- Linking incentives –cash and noncash – to business objectives
- Payroll and payment engine interfaces
- Account payables integration

HR Performance Management

HR performance management applications are designed to automate the aggregation and delivery of information pertinent to the linking of job roles and the mission and goals of the organization. More specifically, the system allows users to automate the performance review process by using mechanisms such as training and key performance indicators to constantly track and monitor the progress of an individual employee, work team, and division.

Key features include:
- Assessment of individual and organizational skills gaps that impede performance and job advancement
- Continuous reviews and establishing milestones
- 360-degree evaluation and real-time feedback

- Performance appraisal automation
- Goal setting and tracking
- Employee surveys
- Alignment of human assets to corporate objectives
- Learning development and job improvement programs
- Fast tracks for top performers
- Delivering training
- Content creation and templates

Workforce Management

Workforce management applications are designed to automate the deployment of the workforce through workload planning, scheduling, time and attendance tracking, resource management, and rules and compliance management. Increasingly, workforce management applications are being integrated into customer relationship management applications in a contact center environment. Through extensive use of workforce management applications, organizations are also able to develop training guidelines, career advancement plans, and incentive compensation programs to improve, motivate, and sustain the quality of their employees.

Key features include:
- Skills and certification tracking
- Shift/vacation bidding
- Workload planning, forecasting, and scheduling
- Scheduling optimization
- Customer wait-time forecasts
- Coverage management
- Absence management
- Labor activity tracking
- Rationalization of revenue per full-time equivalent
- Cost of sales activities
- Sales resource planning based on local and regional opportunities

18. MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

Data Tables
Table 1
Malaysia Human Capital Management Market by Vendors, 2003 and 2004 (US$M)

Vendor	2003	Market Share (%)	2004	Market Share (%)
SAP[1]	1.77	31.2%	1.99	32.5%
SMRHRT[2]	0.27	4.8%	0.82	13.4%
PeopleSoft[3]	0.62	10.9%	0.62	10.1%
KaiZenHR[4]	0.30	5.3%	0.53	8.6%
OriSoft[5]	0.22	3.9%	0.23	3.8%
MRCB[6]	0.13	2.3%	0.08	1.3%
Others[7]	2.38	41.9%	1.86	30.3%
Total	5.68	100.0%	6.13	100.0%

Note:
- Revenue Figures in the table are rounded up to 2 Decimal Points
- Market Share Percentage Figures in the table are rounded up to 1 Decimal Point

1. SAP - Revenues are obtained from IDC's discussions with the local vendor office and internal IDC associates in Asia Pacific in Q3 2003 (for period Jan-June 2003), Q1 2004 (for the period of July-Dec 2003), Q3 2004 (for the period of Jan-June 2004), Q1 2005 (for the period of July-Dec 2004). These revenues are according to IDC's classifications and are IDC estimates (they are crossed checked with the vendors' quarterly earning reports on the US stock exchange for regional and worldwide consolidation).

2. SMRHRT - Revenues verified with the management of SMRHRT in September 2004 for the period of 2003 and once again in October 2005 for the period of 2004. These revenues are extracted from the audited accounts of SMRHRT.

3. PeopleSoft - Revenues are obtained from IDC's discussions with the local vendor office and internal IDC associates in Asia Pacific in Q3 2003 (for period Jan-June 2003), Q1 2004 (for the period of July-Dec 2003), Q3 2004 (for the period of Jan-June 2004), Q1 2005 (for the period of July-Dec 2004). These revenues are according to IDC's classifications and are IDC estimates (they are crossed checked with the vendors' quarterly earning reports on the US stock exchange for regional and worldwide consolidation).

4. KaiZenHR - Revenues verified with the management of KaiZenHR in April 2005 for the period of 2003 and 2004. These revenues are extracted from the audited accounts of KaiZenHR.

5. OriSoft - Revenues are extracted from annual report and/or quarterly earnings announcements on a half-yearly basis for the period of 2003 and 2004.

18.   MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

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6. MRCB - Latest 2H2004 revenues are obtained with guidance from management of MRCB in Q1 2005 and extracted from the company's annual reports and/or quarterly earnings announcements. Revenues are also collected from the annual reports and/or quarterly earnings announcements on a half yearly basis for the period of 2003 and 2004.

7. Others - Revenues are IDC estimates on a half-yearly basis for the period of 2003 and 2004.
Source: IDC, October 2005 version 3.1

Position of SMRHRT

SMRHRT has created a niche product (Workforce Performance Management) for a market that is at the very beginning of its life cycle. This niche market is more concerned with the productivity and competency of the employee and the effect on the company's bottom line, rather than HR operation matters such as payroll and time keeping. SMRHRT solely plays in the Workforce Performance Management market.

Position of KaiZenHR

On the other hand, KaiZenHR offers a single platform to address the computerization needs on integrating staff planning, recruiting, evaluation, onboarding, and measurement processes, differentiating itself from the niche HR application provider. Its target markets span across all verticals and hold tight integration towards the integration on payroll functionality.

18. MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

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Table 2

Malaysia Payroll Market by Vendors, 2003 and 2004 (US$M)

Vendor	2003	Market Share (%)	2004	Market Share (%)
SAP[1]	1.77	31.5%	1.98	31.9%
PeopleSoft[2]	0.62	11.0%	0.63	10.1%
OriSoft[3]	0.15	2.7%	0.17	2.7%
KaiZenHR[4]	0.06	1.1%	0.12	1.9%
MRCB[5]	0.12	2.1%	0.10	1.6%
Others[6]	2.91	51.8%	3.22	51.8%
Total	5.63	100.0%	6.21	100.0%

Note:
- Revenue Figures in the table are rounded up to 2 Decimal Points
- Market Share Percentage Figures in the table are rounded up to 1 Decimal Point

1. SAP - Revenues are obtained from IDC's discussions with the local vendor office and internal IDC associates in Asia Pacific in Q3 2003 (for period Jan-June 2003), Q1 2004 (for the period of July-Dec 2003), Q3 2004 (for the period of Jan-June 2004), Q1 2005 (for the period of July-Dec 2004). These revenues are according to IDC's classifications and are IDC estimates (they are crossed checked with the vendors' quarterly earning reports on the US stock exchange for regional and worldwide consolidation).

2. PeopleSoft - Revenues are obtained from IDC's discussions with the local vendor office and internal IDC associates in Asia Pacific in Q3 2003 (for period Jan-June 2003), Q1 2004 (for the period of July-Dec 2003), Q3 2004 (for the period of Jan-June 2004), Q1 2005 (for the period of July-Dec 2004). These revenues are according to IDC's classifications and are IDC estimates (they are crossed checked with the vendors' quarterly earning reports on the US stock exchange for regional and worldwide consolidation).

3. OriSoft - Revenues are extracted from annual report and/or quarterly earnings announcements on a half-yearly basis for the period of 2003 and 2004.

4. KaiZenHR - Revenues verified with the management of KaiZenHR in April 2005 for the period of 2003 and 2004. These revenues are extracted from the audited accounts of KaiZenHR.

5. MRCB -- Latest 2H2004 revenues are obtained with guidance from management of MRCB in Q1 2005 and extracted from the company's annual reports and/or quarterly earnings announcements. Revenues are also collected from the annual reports and/or quarterly earnings announcements on a half yearly basis for the period of 2003 and 2004.

18. **MALAYSIAN HR MARKET OVERVIEW** *(Cont'd)*

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6. Others - Revenues are IDC estimates on a half-yearly basis for the period of 2003 and 2004.

Source: IDC, Q1 2005 version 3.1

Table 3

Malaysia Human Capital Management Market by Vertical, 2003 and 2004 (US$M)

Vertical	2003	Market Share (%)	2004	Market Share (%)
Discrete Manufacturing	1.20	21.2%	1.71	27.9%
Process Manufacturing	0.64	11.3%	1.00	16.3%
Government	0.98	17.3%	0.90	14.7%
Telecommunications	0.48	8.5%	0.47	7.7%
Utilities	0.42	7.3%	0.46	7.4%
Banking	0.51	9.0%	0.42	6.8%
Financial Markets	0.16	2.8%	0.18	2.9%
Services	0.23	4.0%	0.17	2.8%
Resource Industries	0.18	3.2%	0.16	2.7%
Wholesale	0.21	3.6%	0.13	2.2%
Retail	0.23	4.1%	0.13	2.1%
Construction	0.07	1.1%	0.12	2.0%
Insurance	0.13	2.2%	0.12	2.0%
Transportation	0.19	3.4%	0.10	1.6%
Media	0.01	0.2%	0.01	0.2%
Others	0.04	0.7%	0.04	0.7%
Total	5.68	100.0%	6.13	100.0%

Note:

- Revenue Figures in the table are rounded up to 2 Decimal Points

- Market Share Percentage Figures in the table are rounded up to 1 Decimal Point

Source: IDC, Q1 2005, version 1

18.   MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

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Table 4

Malaysia Payroll Market by Vertical, 2003 and 2004 (US$M)

Vertical	2003	Market Share (%)	2004	Market Share (%)
Discrete Manufacturing	1.14	20.3%	1.72	27.7%
Process Manufacturing	0.65	11.5%	1.03	16.6%
Government	0.99	17.5%	0.96	15.4%
Telecommunications	0.49	8.7%	0.48	7.7%
Utilities	0.41	7.3%	0.45	7.3%
Banking	0.52	9.2%	0.42	6.8%
Financial Markets	0.16	2.9%	0.18	2.9%
Resource Industries	0.19	3.3%	0.17	2.7%
Services	0.22	3.9%	0.16	2.5%
Wholesale	0.21	3.7%	0.13	2.1%
Retail	0.24	4.2%	0.13	2.1%
Construction	0.07	1.2%	0.13	2.1%
Insurance	0.12	2.1%	0.11	1.9%
Transportation	0.20	3.5%	0.10	1.6%
Media	0.01	0.2%	0.01	0.2%
Others	0.03	0.5%	0.03	0.5%
Total	5.63	100.0%	6.21	100.0%

Note:

- Revenue Figures in the table are rounded up to 2 Decimal Points

- Market Share Percentage Figures in the table are rounded up to 1 Decimal Point

Source: IDC, Q1 2005, version 1

18.   MALAYSIAN HR MARKET OVERVIEW *(Cont'd)*

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Table 5

Malaysia Human Capital Management and Payroll Market Forecast, 2004-2009 (US$M)

	2004	2005	2006	2007	2008	2009	CAGR 2004-2009
Human Resource Management	6.13	6.57	6.96	7.31	7.67	7.99	5.4%
Payroll	6.21	6.68	7.11	7.48	7.81	8.15	5.6%
Total	12.34	13.25	14.07	14.78	15.47	16.14	5.5%

Note:

- Revenue Figures in the table are rounded up to 2 Decimal Points

- CAGR Share Percentage Figures in the table are rounded up to 1 Decimal Point

Source: IDC, Q1 2005