

Oracle: Operating on a Cloud

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Abstract

Oracle has been a leading producer of software, services, and database management solutions since 1977. Porter's Five Forces prove that the external environment is a threat to Oracle due to intense rivalry, substitutes, buyers, and low barriers to entry. Using internal and external evaluations Oracle's core competencies are identified as acquisitions, brand recognition, and product innovation and quality, R&D, and technology. Oracle faces issues of intense rivalry, changing technology, market trends, and their declining hardware business. To combat these issues, further analysis shows which plain vanilla strategies Oracle should implement including market development, market penetration, product development, related diversification, and forward, backward, or horizontal integration. Specific strategies are formed focusing on product and market development. These strategies will focus on issues of staying competitive in the industry and creating a continuous competitive advantage.

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Oracle Corporation

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Website: www.oracle.com

CEO: Larry Ellison

1. Introduction

Larry Ellison, Bob Minor, and Ed Oates realized the potential for a relational database model that would allow users to manage data in a more ad hoc way, and from this, the program "Oracle" was created in 1977. Their commercial version of relational database management systems did not go on sale until 1979. Sales took off in 1980 when minicomputers were being purchased for work ("The History," 2014). Oracle has continued to update and innovate their database management software as the market evolves. They have faced challenges and overcome them to become one of the major competitors in the computer software and service industry.

Oracle operates in over 145 countries worldwide. Oracle is ranked 80 on the Fortune 500 list in the computer software industry for 2013 ("Oracle," 2013). Some of Oracle's top

competitors in the industry include Microsoft, IBM, and Symantec among others. These competitors are consistent across all of Oracle's divisions.

Current trends in the computer software and service industry include Software as a Service (SaaS), mergers, databases, and differentiation in markets. SaaS uses cloud technology, which is just a software vendor, hosts the software application and customers access it via the internet ("Software Market Trends"). Consumers are looking for innovative products that make database management easier, more convenient, and will create value for the firm.

The objective of this study is to recognize innovative strategies that strengthen Oracle's competitiveness and market position in the industry. The analysis is done by reviewing Oracle's external and internal factors, identifying core competencies and problems for the firm, and forming key strategies to implement. Through our analysis we found that three key strategies are to implement virtual containers as the new technology in cloud computing, expand further into emerging IT markets, or research, develop new cloud applications, and expand overall cloud offerings.

2. External Analysis

The external analysis will review Porter's Five Forces, the external factor evaluation of Oracle, and the competitive profile matrix according to the industry.

a. Porter's Five Forces and Industry Analysis

Fig 1a. Barriers to Entry

Fig 1a. Porter's Five Forces Analysis- Barriers to Entry		Weight	Highly Unattractive	Mildly Unattractive	Neutral	Mildly Attractive	Highly Attractive	Present Rating	Future Rating
Current			1	2	3	4	5		
Future (3-5 Years)									
Initial capital requirements	0.29							0.58	
Brand establishment	0.27							0.81	0.29
Patents	0.25							0.75	0.81
Economies of Scale	0.19							0.57	0.75
Total Weighted Score:	1.00							2.71	2.42

Initial capital requirements into the software and technology industry are low when establishing a new company. This industry is based on intellectual property rather than physical goods. This is why capital requirement is presently mildly unattractive and becoming highly unattractive in the future as more technology and information is accessible. Along with the low initial capital, brand name and establishment does not hold as much weight in this industry as others. If a program or system from a new entrant is more innovative or reliable, the consumer will chose that over an established brand's product. Brand establishment is mildly unattractive presently and in the future. Patents on software and other products create a barrier to entry by limiting innovation for emerging companies. A small firm threated with patent litigation has no choice but to settle because the cost of the lawsuit would be so high (Lee, 2011). Patents are presently neutral and will remain neutral in the future as companies obtain patents. Financial crisis has caused companies to share specific human resource skills to handle more than one project. This is working on the demand-side of the scale, which means that buyers trust larger companies for crucial products (Porter, M. E., 2008.). Economies of scale is neutral and will remain neutral in the future.

Fig 1b. Power of Buyers

Fig 1b. Porter's Five Forces Analysis- Power of Buyers	Weight	Highly Unattractive	Mildly Unattractive	Neutral	Mildly Attractive	Highly Attractive	Present Rating	Future Rating
			1	2	3	4		
Current			1	2	3	4	5	
Future (3-5 Years)								
Buyer switching costs	0.30							0.6
Buyer Price Sensitivity	0.24							0.96
Buyer concentration	0.26							1.04
Availability of information	0.20							0.4
Total Weighted Score:	1.00							1.56
								1.38

Bargaining power of buyers is the amount of pressure buyers place on firms for lower prices, better quality, and different products (Porter, M. E., 2008). Buyer switching costs are low, overall, for Oracle's industry. Consumers have a need and want for customized products. Switching from one product to another does not take place as often because of the investment (time and money) the consumer has put into the product. Buyer switching costs as mildly unattractive and will become neutral in the future. The software and hardware industries are highly price sensitive and driven by promotions. The price sensitivity of the industry is why outsourcing is so prominent. Buyer price sensitivity is currently mildly attractive and will decrease to be mildly unattractive in the future. Buyer concentration is high when there are more sellers than there are buyers. Buyers are searching for customized software and hardware in a vast market, so there is a high concentration of the buyer market. Buyer concentration is mildly attractive and will continue to be mildly attractive in the future. Information dealing with different software, hardware, or services is readily available to consumers. Buyers are well informed about any products in the industry. This makes it easier to compare different products and companies rather than choosing based on brand recognition. Availability of information is

mildly unattractive, and in the future will be highly unattractive because of the open access to information.

Fig 1c. Power of Suppliers

Fig 1c. Porter's Five Forces Analysis- Power of Suppliers	Weight	Highly Unattractive	Mildly Unattractive	Neutral	Mildly Attractive	Highly Attractive	Present Rating	Future Rating	
Current			1	2	3	4	5		
Future (3-5 Years)									
Availability of talent	0.2							0.8	1
Skill differentiation	0.27						0.81	1.08	
Buyer concentration (effect on suppliers)	0.35							1.4	1.4
Total Weighted Score:	0.82							3.01	3.48

Power of suppliers, including suppliers of labor, can capture more value for themselves by charging higher prices, limiting service, or shifting costs to industry participants (Porter, M. E. 2008). The availability of talent in this industry is widely available across the world. Companies are looking for experienced and fresh talent to provide them with the greatest benefit. There is a large supply of these educated professionals. Availability of talent is mildly attractive and is predicted to become highly attractive in the future because the market for these professionals is continuing to grow. According to Porter, “There is no substitute for what the supplier group provides.” Skills of suppliers in the software and hardware industries are minimally differentiated. This makes it easy for the employer to switch human resources. Skill differentiation is neutral and in the future will be mildly attractive for Oracle, as more suppliers are available. A supplier group is powerful if it is more concentrated than the industry it sells to (Porter, M. E. 2008). Buyer concentration (employer) is high in this market causing the power of suppliers to be low. The employer more concentrated and focused on their need for human capital. Concentration of buyers is mildly attractive currently and in the future.

Fig 1d. Availability of Substitutes

Fig 1d. Porter's Five Forces Analysis- Availability of Substitutes		Weight	Highly Unattractive	Mildly Unattractive	Neutral	Mildly Attractive	Highly Attractive	Present Rating	Future Rating
Current			1	2	3	4	5		
Future (3-5 Years)									
Switching cost	0.36							1.08	
Close substitutes	0.33							1.32	1.08
Saturation of market	0.31							1.24	0.99
Total Weighted Score:	1.00							3.64	3

Availability of Substitutes refers to when a substitute replaces a buyer industry's product (Porter, M. E. 2008). Switching costs are relatively high in the industry, but can still be a threat to Oracle. Switching costs are neutral and will remain neutral in the future. There are substitutes for most software programs and hardware systems. The availability of close substitutes that offer the same benefits as products that Oracle offers, gives the consumer the opportunity to choose a competing system or program. Close substitutes is presently mildly attractive and will be neutral in the future with the development of more substitutes from competitors. It is unlikely that Oracle's industry will be completely saturated; innovation will cause this industry to continue to grow and evolve. The boom in the education sector has led an overwhelming amount of candidates that are qualified to be in the market. The supply is greater than the overall demand. Saturation of the market is currently mildly attractive and will become neutral in the future. The continual growth and creation of products in this industry will create more threat of substitutes in the future.

Fig 1e. Rivalry among firms

Fig 1e. Porter's Five Forces Analysis- Rivalry			Highly Unattractive	Mildly Unattractive	Neutral	Mildly Attractive	Highly Attractive	Present Rating	Future Rating
	Weight		1	2	3	4	5		
Current									
Future (3-5 Years)									
Number of Competitors	0.25							0.75	0.50
Industry Growth	0.21							0.63	0.84
Differentiation	0.30							0.3	0.3
Customer Switching Costs	0.24							0.72	0.48
Total Weighted Score:	1.00							2.4	2.12

Rivalry is intense and the greatest threat to Oracle's industry. Rivalry among firms takes on the forms of price discounting, new product introductions, advertising, and service improvements (Porter, M. E. 2008). There are many competitors in Oracle's different industries. More industry players create more competition among firms. The number of competitors is neutral and will be mildly unattractive in the future. The industry rivalry will become more intense with new entrants and products in the market. The industry is growing, especially in the Indian market. In past years, the software industry has seen a 54 percent growth in India. Industry growth is presently neutral ("Software Industry Analysis," 2013). With the expected domestic and international growth, we predict industry growth to be mildly attractive in the future. The industry's products and services are undifferentiated which leads to intense rivalry. The industry players are providing equivalent services, training, and products to that Oracle offers. Differentiation is highly unattractive and will remain highly unattractive in the future. Customer switching costs are high. This means that rivalry is intense to gain initial customers because it is unlikely that they will switch because of their customized needs, training, and

platform configuration. Customer switching costs as neutral and will be mildly unattractive in the future. Increased competition for customized products will increase rivalry.

Fig 1f. Porter's Five Forces Summary

Fig 1f. Porter's Five Forces: Summary				
	Present	Future	Opportunity or Threat	Assessment
Factors Summary:				
Barriers to Entry	2.71	2.42	THREAT	Barriers to entry are low making it a threat for Oracle. Initial capital requirements and brand recognition weight create easy of entry into the market.
Power of Buyers	1.56	1.38	THREAT	The bargaining power of buyers is a threat because consumers are very price sensitive and there is an increase in the availability of information to buyers
Power of Suppliers	3.01	3.48	OPPORTUNITY	The bargaining power of suppliers is an opportunity because Oracle has a wide selection of talent with similar skills.
Availability of Substitutes	3.64	3	THREAT	The availability of substitutes poses as a threat for Oracle because there are many substitute product available and there are many competitors creating products in the market.
Rivalry	2.4	2.12	THREAT	Rivalry is a large threat for Oracle because the number of competitors is high and differentiation among products and technology is highly unattractive.
Totals	13.32	12.4	THREAT	The external environment of Oracle is a threat according to analysis of the Porter's Five Forces.

Fig 2. External Factor Evaluation Matrix

Key External Factors	Software			Hardware Systems			Services		
	Weight	Rating	Weighted Score	Weight	Rating	Weighted Score	Weight	Rating	Weighted Score
Opportunities									
1. Acquisitions/ partnerships	0.07	4	0.28	0.06	4	0.24	0.05	4	0.2
2.Product Innovation	0.08	3	0.24	0.08	2	0.16	0.07	3	0.21
3.Expansion of communications offerings	0.04	3	0.12	0.04	3	0.12	0.09	3	0.27
4. Increased adoption of cloud computing	0.08	2	0.16	0.06	2	0.12	0.06	2	0.12
5. Technology in emerging markets	0.05	2	0.1	0.07	2	0.14	0.06	3	0.18
6.Take advantage of Global Opportunities	0.06	3	0.18	0.06	3	0.18	0.05	4	0.2
7.Expansion into Chinese and Indian markets	0.05	3	0.15	0.05	3	0.15	0.06	4	0.24
8. Virtualization software	0.08	2	0.16	0.01	1	0.01	0.05	2	0.1
9. research and development initiatives	0.05	3	0.15	0.06	2	0.12	0.04	3	0.12
Threats									
1. Open source database	0.05	4	0.20	0.07	4	0.28	0.04	3	0.12
2. Competition	0.07	4	0.28	0.06	4	0.24	0.07	4	0.28
3.Lawsuits/legal	0.05	3	0.15	0.05	3	0.15	0.06	3	0.18
4.Product errors	0.04	3	0.12	0.06	4	0.24	0.08	4	0.32
5.Chinese and Indian market	0.05	3	0.15	0.05	3	0.15	0.05	3	0.15
6.Substitute products	0.04	4	0.16	0.06	4	0.24	0.05	4	0.20
7.Cloud computing	0.08	4	0.32	0.08	4	0.32	0.02	2	0.04
8.Slow economic growth	0.02	3	0.06	0.04	3	0.12	0.02	2	0.04
9.Pressurized budgets	0.02	2	0.04	0.02	2	0.04	0.05	4	0.20
10.Patent infringements	0.02	1	0.02	0.02	1	0.02	0.03	2	0.06
Total	1.00		3.04	1.00		3.04	1.00		3.23

Recently, Oracle acquired BigMachines which is a leading cloud-based configure, price, and quote solution provider (“Oracle and Big Machines,” 2013), and Oracle has a partnership with Microsoft Azure to utilize their cloud computing. Oracle has the opportunity to take advantage of acquisitions and partnerships to gain market share and diversify their product lines and offerings. Innovation is essential in a competitive, growing market. Oracle can utilize research and development to innovate their products to fit consumer preferences and industry trends. The cloud computing market is expected to continue at an impressive annual growth rate close to 30 percent (“Global Cloud Computing Market,” 2012). Oracle should take the opportunity to continue to develop and innovate into the cloud computing market in order to compete within the industry. In coordination with cloud computing, Oracle can use virtualization software as an opportunity to create new technology. Oracle has been known for their communication services internationally. There are still many opportunities to implement innovations into emerging global markets such as China and India.

Oracle’s main threats are competition within the industry, product errors, and substitute products. Economic factors and budgets can also be a threat to innovation and development for Oracle. New emerging markets pose a threat to Oracle because they create more rivalry. Lawsuits and patent infringements can be expensive and tarnish the integrity of the company.

Fig. 3 Competitive Profile Matrix and Industry Structure Analysis

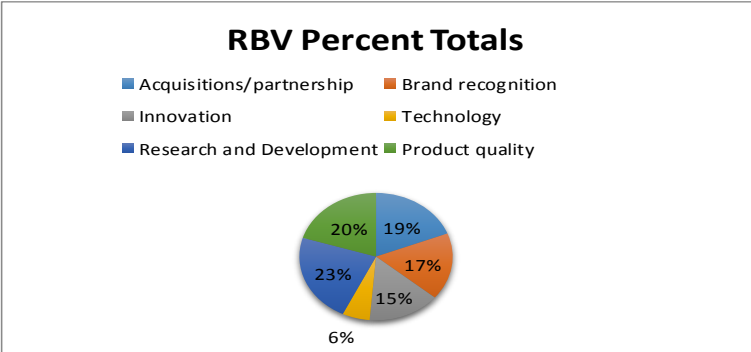
Fig 3. Competitive Profile Matrix								
		Oracle		Microsoft		IBM		
Critical Success Factors	Weight	Rating	Score	Rating	Score	Rating	Score	
Brand Recognition	0.17	4	0.68	4	0.68	4	0.68	
Communication	0.10	4	0.40	3	0.30	4	0.40	
Management	0.22	3	0.66	4	0.88	4	0.88	
Product quality	0.15	4	0.60	4	0.60	4	0.60	
Stability	0.19	4	0.76	4	0.76	4	0.76	
Technology	0.17	3	0.51	3	0.51	4	0.68	
Totals	1		3.61		3.73			4

One of Oracle’s critical success factors is their brand recognition. Oracle was named one of the top five U.S. recognized brands behind IBM and Microsoft (“Brand Recognition,” 2009). Customers choose Oracle because it is a familiar name. Brand recognition holds weight for gaining and retaining customers. Oracle has been recognized as a market leader in service and communication industry. This industry is highly competitive and is crucial to success because it forms the foundation for other business practices and divisions. Service management and product quality are critical success factors because they involve customer relations, different types of services that Oracle offers, and improve the overall effectiveness of the firm. Stability in the product, itself as well as stable development is important for the success of Oracle. Stability involves employee training, product development, and error control. Oracle’s use of current and relevant technology is a critical success factor for them to operate at the top of the market and compete against other firms (Gupta, 2013).

3. Internal Analysis

Fig 4. Core Competencies and RBV Analysis

Fig 4. Core Competencies/RBV									
Core Competencies	Weight	Empirical Indicators				Valuable	Sustained Competitive Advantage	Total Weight	Percent Total
		Rare	Hard to Imitate	Not Easily Substitutable					
Acquisitions/partnership	0.17	y	y	y	y	y	0.85	0.19	
Brand recognition	0.15	y	y	y	y	y	0.75	0.17	
Innovation	0.17	n	y	y	y	y	0.68	0.15	
Technology	0.13	n	n	n	y	y	0.26	0.06	
Research and Development	0.20	y	y	y	y	y	1.00	0.23	
Product quality	0.18	y	y	y	y	y	0.90	0.20	
	1.00						4.44	100%	



In order to identify Oracle's core competencies, it is essential to analyze their firm resources as being rare, hard to imitate, valuable, and not easily substituted (Barney, 2001).

Over time, Oracle has seen success through their continuous acquisitions and partner programs. One of the largest acquisitions for Oracle was the purchase of Sun Microsystems, which added hardware to their portfolio in 2010 (Shankland, 2010). Oracle has a strong network of partnerships, including one with Microsoft Azure to utilize their cloud technology.

Acquisitions and partnerships become core competency because they are hard to imitate, not substitutable, and valuable to the success of Oracle.

Oracle was founded in 1977, just before the computer became popular in the 80's. Oracle has been known for their involvement in the database software and services industry, especially for business management solutions. Oracle's history and brand recognition creates value for the company and a brand that consumers turn to for software services solutions. Oracle's brand recognition cannot be imitated or substituted by competitors, and it creates a core competency for Oracle.

Oracle has won awards for their strides in technology innovations. In the competitive software industry, Oracle has to innovate its applications and programs to keep up with or surpass competitors and stay on trend with changing technology. In January, Oracle introduced new, innovative business applications that are available on their cloud market place ("Oracle Extends Range," 2014). Innovation is hard to imitate and not easily substituted by other companies. As long as Oracle continues to innovate their products and services, they can maintain a sustained competitive advantage in innovation.

As part of the computer software and hardware industries, Oracle has to have a competency in their use of technology. Coinciding with their innovations, Oracle uses

technology to move ahead of competitors. They use their current technology to integrate applications and make them easier and more accessible for consumers (ACShorten, 2013). Technology is not rare or hard to imitate in these industries, but the way technology is utilized creates a sustained competitive advantage for Oracle.

Millions of dollars have been invested into research and development just in 2013. In Oracle's 2013 10-k they say, "We intend to continue to invest significantly in our research and development efforts because, in our judgment, they are essential to maintaining our competitive position ("Oracle 10k," 2013)." This statement shows the importance of research and development (R&D) to Oracle to make improvements on existing products and utilize their resources to create new services and products in all their divisions. Research and development is rare, valuable, and hard to imitate and substitute. This creates a sustained competitive advantage for Oracle.

Oracle has high expectations for the quality of their products and services they offer. They strive to provide their customers with the best quality products and customer service for those products. Quality control is especially important in their hardware division because they are producing physical products. They strive to be proactive to identify and solve any quality issues before their products hit the market ("Oracle 10k," 2013). Oracle's product quality and management is a sustained competitive advantage and it cannot easily be substituted or imitated by competitors.

Fig 5. Internal Factor Evaluation

Fig 5. Internal Factor Evaluation									
	Software			Hardware Systems			Services		
	Weight	Rating	Weighted Score	Weight	Rating	Weighted Score	Weight	Rating	Weighted Score
Strengths									
1. Market position	0.09	4	0.36	0.07	4	0.28	0.01	4	0.04
2. Revenue stream	0.07	4	0.28	0.07	4	0.28	0.07	2	0.14
3. Success of engineered products	0.08	3	0.24	0.08	3	0.24	0.08	2	0.16
4. Strong margins	0.07	4	0.28	0.06	4	0.24	0.08	4	0.32
5. Diversified geographic presence	0.04	3	0.12	0.04	1	0.04	0.06	3	0.18
6. High-quality training	0.05	3	0.15	0.05	2	0.10	0.04	2	0.08
7. Research and Development	0.06	3	0.18	0.06	2	0.12	0.05	1	0.05
8. Inorganic growth strategy	0.05	2	0.1	0.05	3	0.15	0.04	2	0.08
9. Current acquisitions	0.06	4	0.24	0.03	4	0.12	0.04	4	0.16
10. Brand name	0.05	4	0.2	0.05	4	0.20	0.06	4	0.24
Weaknesses									
1. Cloud business	0.04	4	0.16	0.05	4	0.20	0.05	4	0.20
2. Hardware systems business	0.06	4	0.24	0.09	4	0.36	0.05	4	0.20
3. Debt	0.04	2	0.08	0.05	3	0.15	0.05	1	0.05
4. Heavy reliance on US and Europe markets	0.07	3	0.21	0.07	3	0.21	0.08	3	0.24
5. Lack of presence in Asia	0.05	4	0.2	0.06	4	0.24	0.07	4	0.28
6. Heavy reliance on partnerships and alliances	0.05	3	0.15	0.08	3	0.24	0.07	3	0.21
7. Dependence on resellers	0.03	2	0.06	0.03	2	0.06	0.05	2	0.10
8. Economic factors	0.04	2	0.08	0.08	2	0.16	0.06	2	0.12
Total	1		3.33	1		3.39	1		2.85

Oracle's brand name recognition and strong market position are strengths for the company. Oracle holds a leading market position globally in several industries. Oracle is the leader in market share for the relational database management system market with over 48% of the revenues ("Oracle Corporation," 2013). This leading market share indicates the strength of their brand name and the appeal of Oracle's product portfolio. High market shares allow for strength in research and development so Oracle can maintain their competitiveness in the market.

Oracle operates in over 145 countries. They have steadily increased their global presence by serving more than 390,000 customers worldwide in various markets. Oracle can use this strength to continue expanding into emerging markets. Their diverse global presence also helps to bring a strength in revenue stream. Oracle has less dependence on a single market, which allows them to have consistent revenue growth. Oracle operates with a sticky revenue business model requiring lower costs for acquisitions and higher switching costs for products. They operate at strong margins with an operating margin of 36.9% while its net margin was 26.9%.

These margins are significantly higher creating a strength for Oracle (“Oracle Corporation,” 2013).

Oracle’s engineered products bring unique business value to the company. Oracle’s Engineered Systems has been the driver and facilitator optimizations which enhance the performance, reliability, manageability, efficiency to the owners of the applications and software. Each system is designed to support specific workloads and are the building blocks of infrastructure. Oracle operates using inorganic growth strategies like mergers, acquisitions, and divestures, which has become a strength. These opportunities allow Oracle to expand into new markets by remaining competitive. Acquisitions are also a strength for Oracle. Oracle’s customers benefit from their many acquisitions and often allow Oracle to enhance and improve their services to the customer. Oracle performs many acquisitions in various markets in order to gain market share and increase their competitive position.

The increasing popularity of the cloud computing business is a weakness to Oracle because database information technology is evolving and changing. Oracle is beginning to enter the cloud sector, but not to the extent of their direct competitors. Oracle’s hardware systems business has seen continuous decline in revenues. If the drop continues, Oracle will feel the pressure on their profit making business and effect their topline growth (Palmer, 2014). Oracle is currently operating with \$24.5 billion debt, feeling the effects of various economic factors. Oracle’s dependence on specific markets is a weakness. Oracle has a high reliance on the U.S. and European markets. Oracle should focus on entering the emerging Asian market and taking opportunities there. They have a heavy reliance on partnerships, acquisitions, and resellers as well. These are weakness to Oracle because they should strengthen their own sales force in order to create a competitive advantage over their rivals (“7 Enterprise.” 2013).

4. Problem and Issue Diagnosis

Oracle faces problems and issues within their company dealing with their external and internal evaluations. First tier problems that Oracle faces are intense rivalry and major technology changes. Second tier problems include changing market trends and the struggling hardware systems business.

Intense rivalry and competition is a first tier problem for Oracle in the rapidly growing software and services industries. Oracle's main competitors are Microsoft, IBM, and SAP Software and Solutions ("Oracle," 2013). The intense rivalry is due to the large number of competitors in the market and lack of differentiation among the competitors' offerings. Oracle has to continuously innovate and develop their products and services in order to remain a top competitor in the industry. Innovation of products also plays a part in major technology changes that Oracle faces. With cloud computing and virtualization on the rise, Oracle is developing and moving into new markets with new powerful competitors. Moving into new industries and markets requires more capital and research for Oracle to be successful and create a sustained competitive advantage in the market.

Changing market trends is a second tier problem Oracle faces. Trends in the software market have evolved immensely in the past few years away from traditional hardware-software formats. Current trends in the market include cloud computing or SaaS, functional expansion, and penetrating smaller markets ("Software Market Trends"). Oracle has made strides in these trends, but they must continue to innovate as the market changes. Another second tier problem is the struggling hardware systems business. The increasing popularity of cloud technology has decreased the demand for hardware services. Oracle is working to shift their focus to selling

hardware that includes their software in the system in order to boost revenues (“Oracle ends bad run,” 2014).

5. Alternative Strategies Identification

In order to combat the identified problems and issues Oracle faces, an analysis is done to identify one strong top strategy. The alternative strategies identification utilizes various matrices and methods to summarize general strategies Oracle should implement. Through this analysis, three specific top strategies are identified for the firm.

Fig 6. SWOT Strategy Formulation

Expand more into emerging markets (Asia) (S1, S7, O6, O5)	Strengthen direct sales channel (W2, W6, W7, O3)
Expand communications through strategic acquisitions (S1, S8, S9, O1, O3)	Combine virtualization and cloud computing to create new way of distributing applications (W1, W2, O2, O8, O4)
Expand cloud computing offerings (S2, S7, O2, O4)	Take advantage of IT revenue in emerging markets (W4, W5, O5, O6)
ST Strategies	WT Strategies
Acquire cloud computing company to increase adoption of market (S1, S8, T2, T7)	Research and develop newest hardware technology (W2, T2, T6)
Further research and develop open source database technology to remain competitive (S7, S1, T1, T6)	Develop new cloud applications with market trends and technology (W1, T2, T6, T7)
Outsource to Chinese and Indian markets to lower prices and compete in international markets (S4, T5, T2)	Refocus business strategy to focus on transitioning markets to cloud computing (W1, W7, T2, T7)

The completion of the SWOT matrix shows the top twelve strategies for addressing the problems and issues that Oracle faces. These strategies were formed by combing Oracle’s strengths, weaknesses, opportunities, and threats.

Most information technology growth is expected to come from emerging markets in Asia, Latin America, the Middle East, Africa, and Central and Eastern Europe. It is estimated that these emerging markets will represent over 50 percent of market growth (“Oracle Corporation,” 2013). Oracle has significant global presence in emerging markets. Oracle is well positioned to

access the technology that is being developed and utilized in these regions. This will help their position in changing technology and trends.

The next strategy is to expand communications through strategic acquisitions. Oracle has a strong acquisition strategy that has enabled them to stay in leading positions across various markets. They lack acquisitions to further their communication offerings in recent years. Oracle should strive to acquire companies like Acme Packet. Oracle bought Acme Packet in 2013 and they have helped “service providers and enterprises meet these demanding requirements by delivering an end-to-end portfolio of technologies that will support the deployment, innovation and monetization of all-IP networks (“Oracle Buys Acme Packet,” 2013).” Further expansion into this market will enhance the communications of Oracle and improve their market position.

The demand for cloud computing offerings is expected to increase exponentially. Cloud computing is “Internet based computing in which large groups of remote servers are networked so as to allow sharing of data processing tasks, centralized data storage, and online access to computer services or resources (“Cloud Computing”).” Oracle has expanded into cloud computing, but as a rapid growing market, they should innovated and implement R&D to remain competitive in a market with intense rivalry.

Utilizing Oracle’s core competency in acquisitions, the company could acquire a company that is innovative within the cloud computing market. A study was done in March 2014 that concluded that Oracle’s cloud business was not growing as expected (Sikka, 2014). This will strengthen Oracle’s position in the market and allow them to innovate new technology ahead of their competitors. Acquiring a company like this would also slightly reduce the competition within the industry.

An open source database is a design where you can immediately access information from

a set group with less hassle. This technology is becoming more prevalent with the increase of online businesses (Clark, 2012). Oracle could further research and develop topline open source databases in order to compete in the market. Their past focus has been traditional hardware and closed software. Oracle will need to further their position in this market to continue to be dominant in the database industry.

Chinese and Indian information technology markets have seen the most growth in recent years with a growth rate around 14 percent (Muncaster, 2012). Continued outsourcing is an opportunity for Oracle to take advantage of their global presence and international human intelligence capital. This strategy would also lower costs and improve their position in international markets.

Oracle uses an inorganic growth strategy of acquisition and resellers to increase sale volume and market share. Oracle can depend less on resellers and boost their own direct sales. This can be done through creating strategic partnerships with other companies (Shilov, 2011). Oracle would need to continue their current strategy and mix it with their direct strategy in order to maintain their competitive position.

Virtualization is “a system within a system in order to share resources (“Virtualization,” 2014).” Virtualization software is what designs the environment to allow sharing among machines. New technology innovations from Red Hat that will use virtual containers to distribute applications across the hybrid cloud infrastructures that are favored by enterprises (Lundquist, 2014). Oracle can acquire this innovative technology and implement it to be a first mover for this technology among their competitors. This will increase Oracle’s knowledge and advantage in the cloud computing market.

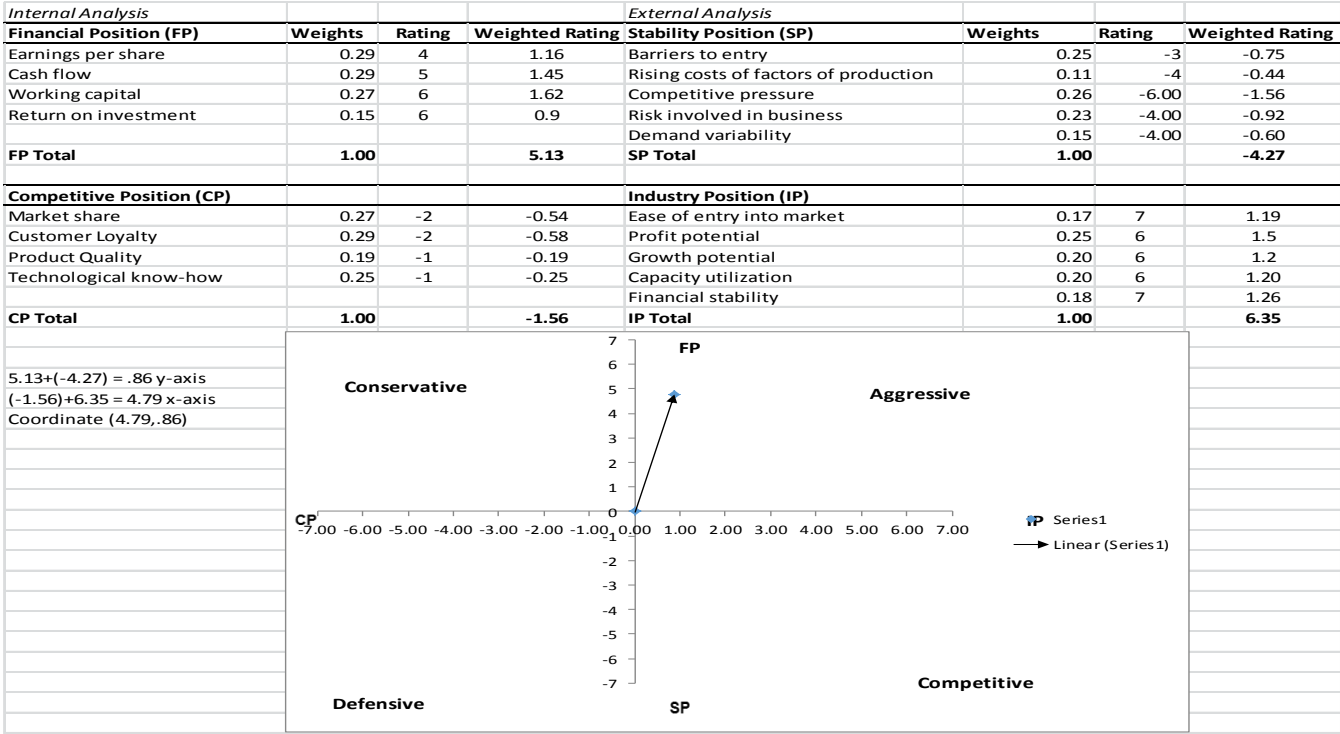
Oracle is losing market share in the hardware systems market compared to their

competitors. Oracle can research and develop new hardware systems that utilize innovations such as cloud computing and engineered systems. This would require strong R&D skills and Oracle could acquire companies to aid in their research.

Oracle’s current cloud computing method uses applications through an online marketplace. Oracle can research market trends and create new applications based on what way consumers are looking to use the cloud. This would increase Oracle’s competitive position in the cloud industry by offering more products and creating strong integrated applications.

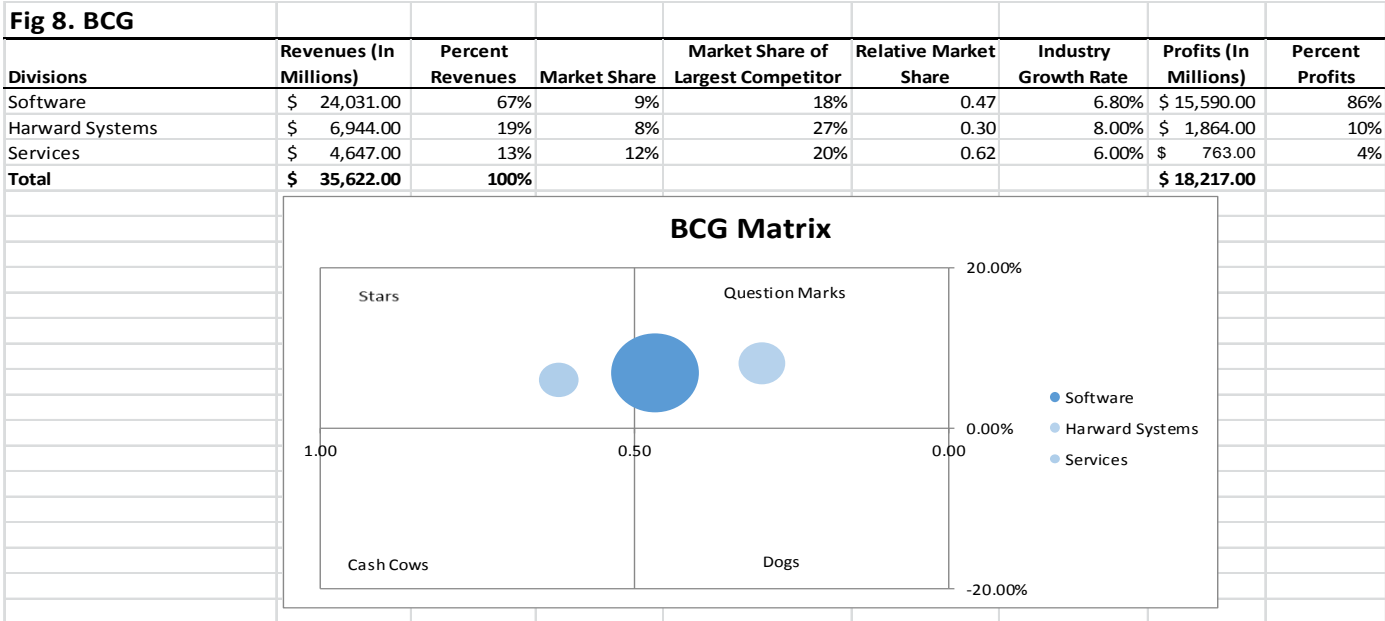
Continuing to focus on cloud computing, Oracle could refocus their business and strategies to focus on transitioning their markets to cloud computing. Placing an emphasis on cloud technology will allow Oracle to pull ahead in the market and become a top competitor. Oracle will also be able to innovate and keep up with the current and emerging cloud technology market.

Fig 7. SPACE Matrix and Corresponding Graph



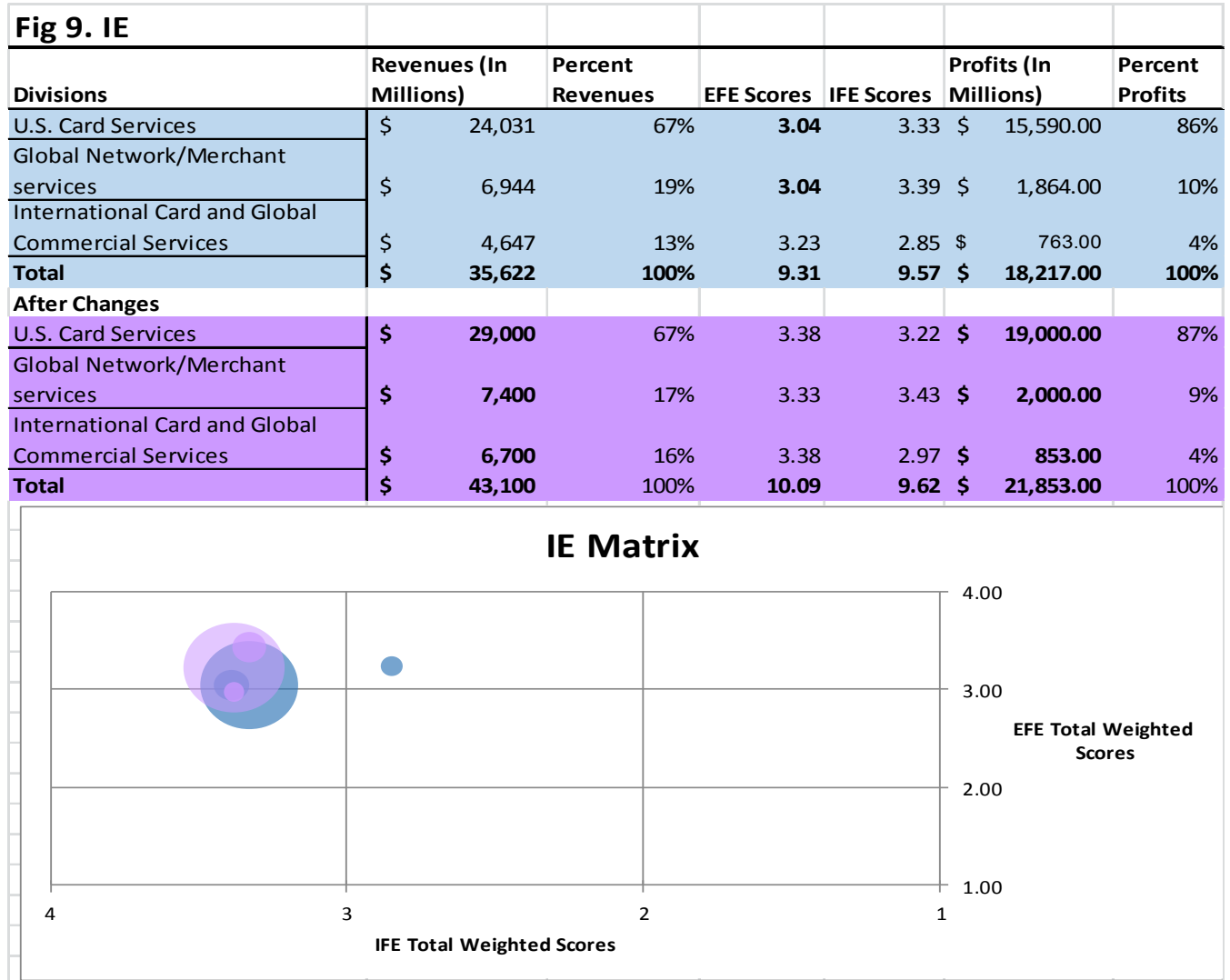
The SPACE Matrix shows that Oracle is financially strong and has a competitive advantage in a stable industry. Oracle is in an excellent position to use its internal strengths to integrate and use intensive strategies to increase market share and remain competitive in the industry. Oracle can take advantage of external opportunities and overcome weaknesses by innovating products and taking advantage of new markets. Oracle already has a strong aggressive market position due to their high number of acquisitions and partnerships.

Fig 8. BCG Matrix and Table



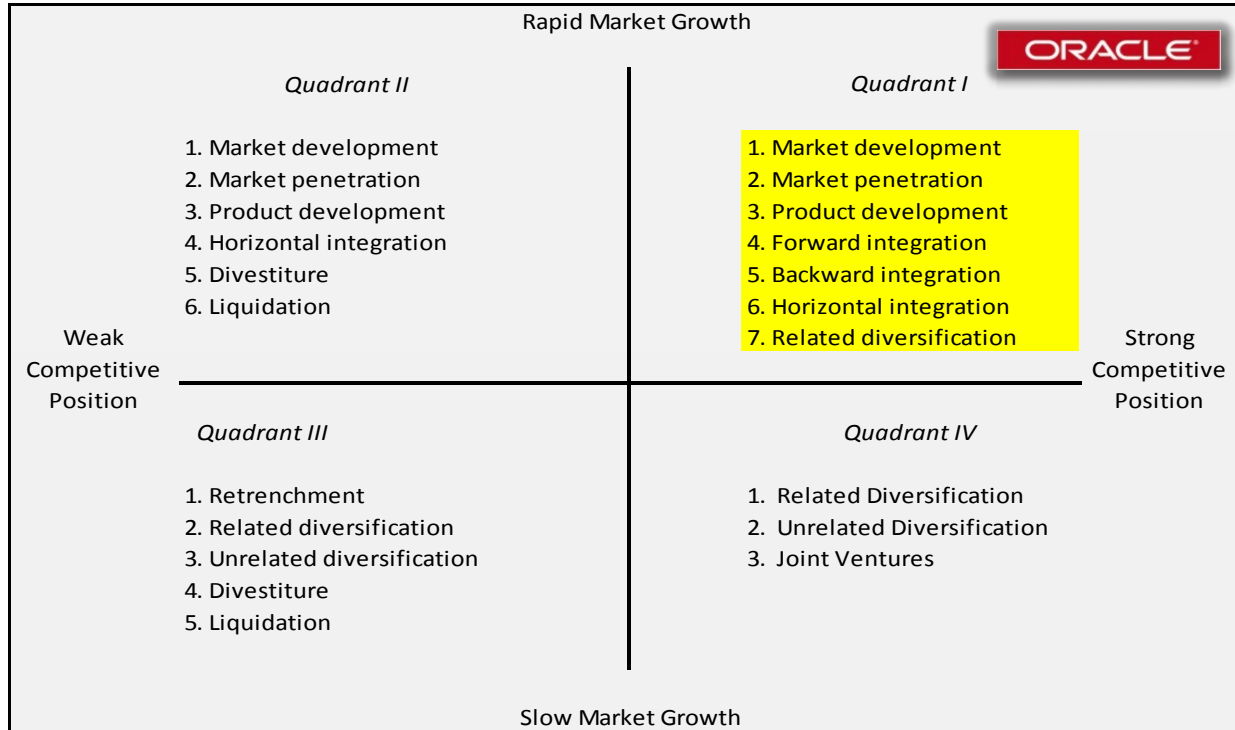
Oracle’s greatest revenues come from their software division. The software division is a foundation of Oracle’s business and is comprised of new software license and updated software license and support. The software division is mainly in the question mark quadrant. It is placed in this quadrant because its market share is 8 percent of the industry while its largest competitor (Microsoft) has an 18 percent market share of the industry. The hardware systems division is also in the question mark quadrant.

Fig 9. IE Matrix



The IE matrix places all of Oracle’s divisions in ideal positions within the chart. All of the divisions are in the grow and build cells. They are placed in these cells because Oracle has a strong competitive position and each division still has opportunities for Oracle to grow in these industries. Oracle needs to implement strategies that will grow and expand their divisions to continue to combat their competition. The grow and build cells suggests the firm should participate in backward, forward, or horizontal integration or market penetration, market development, and product development.

Fig 10. GRAND Matrix



Based on the analysis in the other matrices, Oracle should be placed in Quadrant I of the GRAND matrix. Oracle’s industry has rapid market growth, and they have a strong competitive position within the market. Oracle’s position in the market suggests that they should take part in market development, market penetration, product development, related diversification, and forward, backward, or horizontal integration.

Fig 11. Plain Vanilla Summary Table

Matrix	Recommended Strategy
SPACE	<ol style="list-style-type: none"> 1. Backward, Forward, or horizontal integration 2. Market penetration 3. Market development 4. Product development 5. Diversification (related or unrelated)
BCG	<ol style="list-style-type: none"> 1. Backward, Forward, or horizontal integration 2. Market penetration 3. Market development 4. Product development
IE	<ol style="list-style-type: none"> 1. Backward, Forward, or horizontal integration 2. Market penetration 3. Market development 4. Product development
Grand	<ol style="list-style-type: none"> 1. Market development 2. Market penetration 3. Product development 4. Forward integration 5. Backward integration 6. Horizontal integration 7. Related diversification
Most Recommended: Forward/Backward/Horizontal integration, Market development, Market penetration, and product development	

Summarizing the suggested strategies from the matrices in the Plain Vanilla Summary, the table shows the top suggested strategies to implement at Oracle. The summary has suggested that the top plain vanilla strategies to implement are market development, market penetration, product development, related diversification, and forward, backward, or horizontal integration.

The alternative strategy analysis assisted in forming three top strategies that Oracle could implement. The strategies are to implement virtual containers as the new technology in cloud computing, expand further into emerging IT markets, or research, develop new cloud applications, and expand overall cloud offerings. All three strategies use the suggested plain vanilla strategies of market development and product development.

6. Strategic Evaluation and Selection

Fig 12. QSPM Matrix

Fig 12. QSPM

		Strategic Alternatives					
		Implement virtual containers as the new technology in cloud computing (S7, S9, T7, W1, W2, O2, O8, O4)		Expand further into emerging IT markets (S1, S7, O6, O5, W4, W5)		Research and develop new cloud applications and expand overall cloud offerings (S2, S7, O2, O4, W1, T2, T6, T7)	
Key Factors	Weight	AS	TAS	AS	TAS		
<i>Opportunities</i>							
1. Acquisitions/ partnerships	0.07	-		4	0.28	1	0.07
2. Product Innovation	0.08	4	0.32	1	0.08	4	0.32
3. Expansion of communications offerings	0.04	-		4	0.16	-	
4. Increased adoption of cloud computing	0.08	4	0.32	-		4	0.32
5. Technology in emerging markets	0.05	3	0.15	4	0.2	3	0.15
6. Take advantage of Global Opportunities	0.06	1	0.06	4	0.24	-	
7. Expansion into Chinese and Indian markets	0.05	-		3	0.15	-	
8. Virtualization software	0.08	4	0.32	-		-	
9. research and development initiatives	0.05	4	0.2	-		3	0.15
<i>Threats</i>							
1. Open source database	0.05	-		-		1	0.05
2. Competition	0.07	4	0.28	4	0.28	3	0.21
3. Lawsuits/legal	0.05	-		-		-	
4. Product errors	0.04	1	0.04	1	0.04	2	0.08
5. Chinese and Indian market	0.05	-		4	0.2	-	
6. Substitute products	0.04	4	0.16	-		4	0.16
7. Cloud computing	0.08	4	0.32	-		4	0.32
8. Slow economic growth	0.02	1	0.02	2	0.04	-	
9. Pressurized budgets	0.02	-		4	0.08	-	
10. Patent infringements	0.02	-		-		-	
Total	1						
<i>Strengths</i>							
1. Market position	0.09	2	0.18	-		-	
2. Revenue stream	0.07	-		3	0.21	3	0.21
3. Success of engineered products	0.08	4	0.32	-		-	
4. Strong margins	0.07	-		2	0.14	1	0.07
5. Diversified geographic presence	0.04	-		4	0.16	-	
6. High-quality training	0.05	-		3	0.15	-	
7. Research and Development	0.06	4	0.24	-		4	0.24
8. Inorganic growth strategy	0.05	1	0.05	-		-	
9. Current acquisitions	0.06	3	0.18	1	0.06	-	
10. Brand name	0.05	3	0.15	3	0.15	-	
<i>Weaknesses</i>							
1. Cloud business	0.04	4	0.16	-		4	0.16
2. Hardware systems business	0.06	2	0.12	-		-	
3. Debt	0.04	-		-		1	0.04
4. Heavy reliance on US and Europe markets	0.07	-		3	0.21	3	0.21
5. Lack of presence in Asia	0.05	-		3	0.15	-	
6. Heavy reliance on partnerships and alliances	0.05	-		4	0.2	-	
7. Dependence on resellers	0.03	2	0.06	3	0.09	-	
8. Economic factors	0.04	-		-		2	0.08
Total	1		3.65		3.27		2.84

The top three strategies for Oracle based on the SWOT matrix and the plain vanilla summary are to implement virtual containers as the new technology in cloud computing, expand

further into emerging IT markets, or research, develop new cloud applications, and expand overall cloud offerings. All of these strategies will help to solve the problems Oracle faces.

Implementing virtual containers as the new technology in cloud computing is the top strategy for Oracle to implement. New containers, in a digital form, are being hyped as the next thing in cloud computing. According to Bill Ives of FastForward, “The global cloud computing market will grow from \$40.7 billion in 2011 to more than \$241 billion in 2020 (“Cloud Computing Statistics,” 2012).” With continuous innovations, there are many opportunities in this industry. Red Hat is calling this new technology “Project Atomic.” The project is explained to be a cloud host operating system with open-source container technology from Docker. Instead of requiring a separate operating system with each virtual machine, applications run in containers on top of a host operating system (Kerner, 2014). Applications will be certified to run across multiple environments. Oracle can work with Red Hat to utilize the technology and implement it into their systems and applications. This virtualization of containers in an cloud will open opportunities for businesses and international markets to operate on a single platform across many environments. Implementation of this strategy would place Oracle in a top competitor position across multiple industries. Oracle is already the market leader for the database market. This new technology would make Oracle a market leader in cloud database management and move them further up in the highly competitive, growing market.

Expanding further into emerging IT markets will help Oracle take advantage of their global presence and utilize international talent to increase their competitive advantages. Emerging markets are expected to produce more than \$725 billion in IT spending. Emerging markets are defined as Asia/Pacific (which exclude the mature markets of Japan, Australia, New Zealand, Singapore, South Korea, Hong Kong and Taiwan), Latin America, the Middle East and

Africa (excluding mature Israel), and Central and Eastern Europe (“Oracle Corporation,” 2013).

Outsourcing to emerging markets can lower costs and establish communication channels.

Oracle’s presence in emerging markets will help to increase their market share and create new opportunities for international acquisitions.

Researching and developing new cloud applications and expanding overall cloud offerings would increase Oracle’s competitive advantage across all markets. Businesses and consumers are looking to use cloud technology in their operations. Oracle currently offers applications in marketing, sales, social, and service. Developing new applications for Oracle’s cloud would allow them to penetrate and target new markets. New markets could use Oracle’s cloud service to expand and increase their business.

7. Recommended Solution and Implementation

The top strategy for Oracle is to implement virtual containers as the new technology in cloud computing. Oracle operates under three core principals, which are “Simplify: Speed information delivery with integrated systems and a single database. Standardize: Reduce cost and maintenance cycles with open, easily available components. Automate: Improve operational efficiency with technology and best practices (“Oracle”).” Implementation of this new, innovative technology will allow Oracle to coincide with their principals by simplifying database management and information sharing by making it easily available. Customers are looking for new technology that will simplify database sharing and use one platform.

Oracle’s financial standing allows them to allocate resources for the research, development, production, and sale of the virtual container technology without creating sub-problems or over taxing resources. Endeavors in the technology industry are costly, so Oracle should allocate \$900 million for the development and implementation of this technology. Oracle

should finance this strategy with stock financing. Allocating a large amount of money will be more beneficial in issuing new stocks than debt financing the endeavor. This cost includes research and development, marketing and promotions, supplier resources, and education.

The initial process will be acquiring the technology for the virtual container technology from Red Hat. Then Oracle will need to develop the applications and databases to be used on this single platform cloud device. It is essential that Oracle test this new technology so that the implementation can be successful for clients. Oracle will want to patent any new advancements they make to the containers, so that they cannot be copied by competitors adopting this technology.

Oracle should market this technology to their current customers as well as new markets. Current customers will want to transition to the newest technologies especially since the virtual containers make accessing information easier and simpler across multiple environments. This will be an advantage for international businesses. New markets will be interested in adopting this innovative technology because it utilizes the newer open source technology and allows applications to be run on multiple levels (Kerner, 2014).

Below is a tentative time line of implementation

Fig 13. Short Term Timeline for Strategic Implementation

Short Term Timeline	
Time (in months)	Task
0-6	Strategy formation, acquire technology, develop unique applications
6-7	Test virtual container technology and applications
7-12	Market to current and emerging markets, make available for current customers whom the technology would benefit most

Fig 14. Long Term Timeline for Strategic Implementation

Long Term Timeline	
Time (in years)	Task
1-2	Make any adjustments to cloud technology, Adopt container storage at more levels than database and applications
2-3	Continue research and development of cloud technology and open source applications
3-5	Core competency in cloud computing and virtualization

Fig 15. Projected Income Statement and Balance Sheet

Projected Income Statement and Balance Sheet In Millions CURRENCY						
Projected Income Statement	2015	2014	2013	2012	2011	2010
Sales	40000	31000	37180	37121	35622	26820
Cost of Goods Sold	6547	6874	7113	7858	8398	7740
Gross Margin	33453.00	24126.00	30067.00	29263.00	27224.00	19080.00
Selling Expenses & Administrative Expenses	13500	14890	13250	12780	12070	9250
Earning Before Interest and Taxes	19953.00	9236.00	16817.00	16483.00	15154.00	9830.00
Interest	820.00	800.00	797.00	766.00	808	746
Earning Before Taxes	19133.00	8436.00	16020.00	15717.00	14346.00	9084.00
Taxes	2030	3000	2970	2980	2860	2110
Net Income	17103.00	5436.00	13050.00	12737.00	11486.00	6974.00
Dividends						
Retained Earnings						
Projected Balance Sheet	2015	2014	2013	2012	2011	2010
Assets						
Cash	35,000.000	30,000.000	32220	30680	28850	18470
Accounts Receivable	7,300	7,000	6880	7190	7500	6320
Inventory	205	198	240	158	303	259
Other Current Assets	2,610	2,456	2360	2000	2520	1960
Total Current Assets	45,115	39,654	41,700	40,028	39,173	27,009
PP&E	3,320	3,120	3,050	3,020	2,860	2,760
Goodwill	29,600	28,050	27,340	25,120	21,550	20,430
Less Depreciation	2,900	2,800	2,700	2,400	2,240	1,890
Net Plant and Equipment	-420	-320	-350	-620	-620	-870
Total Fixed Assets	2,500	2,360	2,280	1,600	946	798
Total Assets	76,795	69,744	70,970	66,128	61,049	47,367
Liabilities						
Accounts Payable	402	468	419	438	701	775
Notes Payable	0	0	0	0	0	0
Other Current Liabilities	10,100	10,680	11,430	11,970	12,240	10,630
Total Current Liabilities	10,502	11,148	11,849	12,408	12,941	11,405
Long Term Debt	22,000	20,500	1849	13520	14770	11510
Additional Paid-in-capital						
Retained Earnings	22,000.00	24,000.00	25,850.00	26,090.00	22,580.00	16,150.00
Total Liabilities and Net Worth	54,502.00	55,648.00	39,548.00	52,018.00	50,291.00	39,065.00

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