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# THE CONSENSUS AMONG US GAAP AND IFRS HAVING STEMMED FROM PRESSURE OF THE U.S. SOFTWARE INDUSTRY: “APPLE RULES”\*

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## ABSTRACT

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In the last ten years, software companies enter into more complex service offerings, so-called —“multiple deliverables”. This study describes how Apple Inc. found itself in the center of subscription accounting rules in US GAAP causing an understatement of its iPhone earnings by \$3.8 billion in 2008 and then primarily took the leading role in pushing Financial Accounting Standards Board (FASB) for a need of standard change in that particular industry, started in 2008 and finalized in 2014. On September 23, 2009, the industry gained its first victory against Generally Accepted Accounting Principles (US GAAP) with the issuance of new rules; Emerging Issues Task Force (EITF) Issue No. 08-1, “*Revenue Arrangements with Multiple Deliverables*” (EITF 08-1) and then penetrated the whole industry in the world with a converged standard; namely “*Revenue from Contracts with Customers*” (IFRS 15) which was issued jointly by FASB and International Accounting Standards Board (IASB) on May 28, 2014 superseding all FASB’s and IASB’s rules.

**Keywords:** IFRS 15, revenue, multiple-deliverables, Apple, subscription accounting

**JEL Classification:** M40, M41

## ABD YAZILIM ENDÜSTRİSİNDEN MUHASEBE DEĞİŞİKLİĞİ İÇİN GELEN BASKI KAYNAKLI US GAAP ve UFRS UZLAŞMASI: “APPLE KURALLARI”

### ÖZ

Yazılım şirketleri, özellikle son on yılda, “çoklu eylem içeren sözleşmeler” niteliğindeki daha karmaşık hizmet sunumuna girmiştir. Bu çalışmada, finansal tablolarını Amerikan Genel Kabul Görmüş Muhasebe İlkeleri’ne (US GAAP) göre hazırlayan Apple Şirketi’nin abonelik muhasebesi kurallarına uyum nedeniyle 2008 yılında gerçekleştirdiği iPhone satışlarına ilişkin

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hasılat tutarını 3,8 milyar dolar az göstermek zorunda kaldığı ve bu nedenle ABD Finansal Muhasebe Standartları Kurulu'nun bir standart değişikliğine gitmesinde piyasada üstlendiği öncü rolü anlatılmıştır. 23 Eylül 2009'da, hızla büyüyen bu endüstri, ilk önce Gündeme Gelen Çalışma Grubu'nun (Emerging Issues Task Force-EITF) yayınladığı EITF 08-1 “Çoklu Eylem İçeren Sözleşmelere İlişkin Hasılat” ile US GAAP'in gerçeği yansıtmayan eski uygulamasına karşı ilk zaferini kazanmış ve daha sonra uzun süren çalışmalar neticesinde, 28 Mayıs 2014'te ABD Finansal Muhasebe Standartları Kurulu ve Uluslararası Muhasebe Standartları Kurulu (UMSK) tarafından ortak UFRS 15 “ Müşterilerle Yapılan Sözleşmelerden Doğan Hasılat” Standardı yayınlanmıştır.

**Anahtar Kelimeler:** IFRS 15, hasılat, çoklu eylem içeren sözleşmeler, Apple, üyelik muhasebesi

**JEL Sınıflandırması:** M40, M41

## 1. INTRODUCTION

As the world of technology changes too fast, high-tech companies aggressively compete to offer smarter consumer products to their customers. Given the increasing significance of its software for defining a product as smart, a conscious consumer will be willing to buy it as bundled with its software. Consider smartphones, telecommunications equipments, personal computers, medical devices and even cars. As a result, companies start entering into more complex business transactions such as providing “multiple deliverables” including not only a single hardware but also embedded or attached software, professional services, maintenance and support along with a single contract or a series of contracts. A software that is bundled into a smartphone and a promise of future upgrade or a delivery of a computer along with one year of maintenance service are good examples of “multiple deliverables”. However, recognizing revenue for such transactions became a knotty issue for the companies reporting in accordance with US GAAP.

Since 2008, primarily Apple Inc. (Apple) and other various technology companies had been criticising the impractical and inconsistent revenue recognition rules required by the Statement of Position No 97-2, “*Software Revenue Recognition*” (SOP 97-2) of incredibly growing, profitable and cash generating

business —“multiple deliverables” (DeWitt 2009). In response, with the initiation of Apple, many software companies started to lobby for changing the revenue recognition rules of US GAAP. At last, FASB issued initially Emerging Issues Task Force (EITF) Issue 00-21, “*Revenue Arrangements with Multiple Deliverables*” (EITF 00-21) and then EITF Issue No. 08-1, “*Revenue Arrangements with Multiple Deliverables*” (EITF 08-1).

Even though the inconsistencies and complexities in US GAAP might seem resolved a bit through the issuance of new rules, there still exists the problem of disparity between International Financial Reporting Standards (IFRS) and US GAAP. Some critics argue that, IFRS approach brings abuse due to its leaving room for management assumptions whereas US GAAP is filled with complex, very strict rules and regulations allow limited judgement (Leone 2009). The major results of divergent practices on revenue recognition are two fold: 1) incomparability of similar companies’ financial positions operating in the same industry and 2) difficulty in identifying and rationalizing those divergencies for the companies reporting under both frameworks.

Accordingly, on May 28, 2014, this industry gained a victory and FASB and IASB issued a converged standard, IFRS 15 “*Revenue from Contracts with Customers*” superseding all existing FASB’s Rules (EITF 08-01, EITF 09-03, SOP 97-2) and also International Accounting Standards (IAS) 11 “Construction Contracts” and IAS 18 “Revenue”.

The standard will be effective for annual reporting periods beginning after December 15, 2017 (2018 for calendar year) and interim reporting periods within the reporting period for public companies. Also, early application is allowed for the annual and interim reporting periods beginning after December 15, 2016. All other entities will comply with the standard for the annual reporting periods beginning after December 15, 2018 and the interim periods within annual reporting periods beginning after December 15, 2019. The companies using IFRS will be required to apply the standard for annual reporting periods beginning on or after January 2017.

The remainder of this paper is organized as follows: The next section explores the historical transition process of revenue recognition rules for “multiple

deliverables” in US GAAP and the significant role of Apple in this enduring process. Section 3 presents the convergence of US GAAP and IFRS for revenue recognition of all contracts with customers and the issuance of the new standard —IFRS 15, and Section 4 concludes the paper.

## **2. REVENUE RECOGNITION FOR MULTIPLE DELIVERABLES UNDER US GAAP**

### **2.1. SOP 97-2 (Subscription Accounting)**

The primary rule for software revenue recognition is AICPA Statement of Position (SOP) No. 97-2, namely “*Software Revenue Recognition*” for both public and private software companies. It is the first industry specific guidance on revenue recognition for software and software-related products. It explains when and in what amount of revenue should be recognized for mainly pure and traditional type of software arrangements that include licensing, selling, leasing or marketing “standard” software and software-related units.

As technology evolves, software companies start entering into more complex transactions such as multiple-element arrangements containing both software and non-software deliverables, all to be sold together. Paragraph 9 of SOP 97-2 defines software deliverables as software products, upgrades, post-contract support (PCS) or services related to software. Non-software deliverables include hardware, peripherals, services unrelated to software deliverable or other related deliverables.

The application of SOP 97-2 revenue recognition rules depends on whether the sale of any product or service contains software that is more than incidental to its product or service as a whole. If the software is essential to the functionality of its product or service and a key influence for a customer’s purchasing decision, it is defined as more than incidental<sup>1</sup>. In that case, the software can not be separated from its non-software element and both will be treated as one unit of accounting under SOP 97-2. For example, an embedded software such as Windows 8.1 for a computer is essential to its hardware’s functionality and even the hardware is on one contract and software is on another, the hardware is considered as software-related. Hence, both

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<sup>1</sup> Indicators that software is more than incidental are: 1) the software is a significant focus of the marketing or the software is sold separately, 2) the vendor provides post-contract support, 3) the vendor incurs significant software development costs

items will fall within the jurisdiction of SOP 97-2.

Under SOP 97-2, recognition of revenue for an arrangement including a single software occurs at delivery if the following four conditions are met:

1) **a valid, signed contract with a customer:** According to Paragraph 17 of SOP 97-2, revenue should not be recognized unless persuasive evidence of an arrangement exists even if all other requirements are met including delivery.

2) **delivery must be complete:** software vendors should make their sales with Free On Board (FOB) factory (destination) contracts.

3) **the fee must be fixed or determinable:** if a fee is not fixed or determinable in the contract, revenue should be recognized when the payments from customers become due, assuming all other conditions are met.

4) **collection of the fee must be probable:** should be accounted for in conformity with FASB Statement No. 5, Accounting for Contingencies.

However, for multiple deliverables, the process gets complicated because there's just one total fee covering all elements that will be delivered at varying times. In that case, the companies find themselves dealing with strict requirement of SOP 97-2 —vendor-specific objective evidence<sup>2</sup> (VSOE) of fair value. Hence, an increasing number of companies outside the traditional software sectors are drawn into the complexities of determining VSOE of fair value as software becomes an increasingly essential element in their products. If VSOE exists for all elements, the total arrangement fee must be parsed out to each element of the arrangement and can be recognized as revenue. What makes the revenue recognition within SOP 97-2 a thorny issue is the inexistence of VSOE for an element in the contract. In that case, it forces the companies to apply residual method which they must defer the revenue recognition of the total fee until the earlier of the existence of VSOE or the delivery of all elements in the arrangement. This is called “subscription accounting” (SOP 97-2:48 and 49). It is mostly applied when companies provide adjunct products or

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<sup>2</sup>VSOE is the price that must be determined by the vendor when a deliverable is sold separately and is not likely to change until the delivery is accomplished. If not sold separately, the preferred method for determining VSOE is the use of vendor's own products and services sales data related to separate sales, however, the companies are also allowed to determine the value through ultimate pricing decision referring to the separately sold similar items within 30 days. Bell-Shaped Curve, Substantive Renewal Rate and Residual rate are common methods for establishing VSOE.

services (i.e. upgrades) that far exceed the delivery of the actual software because VSOEs for those undelivered elements may not exist at that point of time.

When VSOEs are unknown especially for future deliverables, the deferral of revenue and expenses in SOP 97-2, in fact complies with matching principle in accounting and prevent earnings from being recorded before earned. However, it leads to a significant understatement of revenue, at least for upfront hardware sales, which was the case for Apple.

Due to its strict VSOE requirement, Apple started to complain about being forced into use of subscription accounting for the arrangements including multiple elements. Not only Apple, but also other various software companies started to argue about their unrecognized revenues and therefore the significant inconsistency between the actual cash inflows and revenues was misleading the financial statement users (www.fasb.org).

## **2.2. Apple Is Ruling Out Old US GAAP Rules: “*Apple Rules*”**

Apple is the top technology company in the world with \$233 billion (www.forbes.com) revenue followed by Microsoft, IBM, Google and Oracle in 2016. With the creation of Apple products like iPhone, iPod, iPad, Mac, Apple TV etc., Apple has really changed the technology world. Not only that, but also, Apple became the initiator for new revenue recognition rules in accounting for the products with multiple deliverables, sometimes informally called “*Apple Rules*” (www.inc.com).

Apple’s net sales consists of primarily revenue from the delivery of hardware, software, music products, digital content, peripherals, service and support contracts. For most of its sales, the four criteria of SOP 97-2 were met at the time of the delivery that lead to an immediate revenue recognition. However, for certain sales (i.e. online sales to individuals), Apple had to defer the total revenue until the full product reached to the customer’s final destination. Furthermore, for the sales where the fee was not fixed or determinable at the outset of the arrangement, the total revenue was not recognized till the amounts became due and payable. In 2006, when Apple sold its latest product, MacBook with an embedded future software upgrade, it did not inform its customers about the upgrade fee at its launch. As the upgrade was an undelivered element, it did not have an established VSOE at the time of MacBook sale which

would have allowed Apple to account for it separately. Therefore, the company management knew that because of the inexistence of VSOE the total revenue of MacBook sales would be deferred in accordance with SOP 97-2. This would lead to understatement of revenues which the company management did not want to experience such a misleading financial picture at that time (Brochet, Palepu and Barley 2013).

In June 2007, Apple entered the highly competitive smartphone market with its so called “revolutionary mobile phone” — iPhone. Apple’s CEO, Steve Jobs always stated as, “*the phone of the future will be differentiated by its software*”. In fiscal year 2008, 39 percent of Apple’s sales flow from iPhones, which grew 583 percent (DeWitt 2009). At the launch of iPhone, Apple declared to offer periodical upgrades at “*no cost*” to increase customer loyalty and achieve competitive advantage. With this application, Apple knew that it would be forced to use subscription accounting but still when they recalled the long-lasting consumer complaints for upgrade charge of MacBook in 2006, they did it for its loyal customers (Brochet et.al. 2013).

Meanwhile, Apple’s CFO, Peter Oppenheimer announced that revenue from iPhone 3G sales would be recognized under SOP 97-2 through the following explanation:

*“Since we will be periodically providing new software features to iPhone customers free of charge, we will recognize the revenue and cost of goods sold associated with iPhone handset sales on a straight line basis over 2 years (the typical length of a mobile phone service contract). So while the cash flow from iPhone sales will be collected at the time of sale, we will be recording deferred revenue and cost of goods sold on our balance sheet and amortizing both of them into our earnings on a straight line basis over 2 years. We will continue to expense our iPhone engineering, sales and marketing costs as we incur them. This accounting policy will have no impact on cash flow or economies of our business”* (Dilger, 2009)

Therefore, this time, Apple accepted to apply subscription accounting to comply with SOP 97-2 and had to defer the total revenue and cost of goods sold for its iPhone sales on a straight-line basis for a period of two years due to the inexistence of VSOE



for free future unspecified upgrades. An example of Apple recordings for an iPhone 3G sales at \$500 with a gross margin of \$150 is as follows:

Account Name	DR	CR
Cash	500	
Sales		250
Deferred Revenue		250*
Cost of Goods Sold (COGS)	175	
Deferred Expenses	175*	
Inventory		350

\* The amounts are deferred on a straight-line basis over two-year period and calculated as  $(\$500/2)$  and  $(\$350/2)$ .

Hence, Apple was at the center of the revenue recognition problem when it decided to launch free software updates along with iPhone to its customers. However, from a major competitor of Apple's side, Samsung was preparing its financial statements in accordance with the International Financial Reporting Standards, as adopted by the Republic of Korea ("Korean IFRS"). Samsung was also launching software updates same as Apple but as there was no VSOE requirement in IFRS, and it did not have to defer total revenues and cost of goods sold for its multiple-element productsales([www.samsung.com/us/aboutsamsung/investor\\_relations/financial\\_information](http://www.samsung.com/us/aboutsamsung/investor_relations/financial_information)). This remarkably shows how the application of accounting standards creates a reporting difference in a global context where two giant firms compete in the same multiple deliverable industry.

At the fourth quarter of 2008, Apple issued its financial statements including iPhone results in accordance with SOP 97-2. The outcome was unfavorable; their earnings looked smaller and at the same time extraordinary cash flow relative to reported earnings emerged due to upfront cash collection. This resulted in inconsistencies and incomparability between the financial performance of economically similar products of the same company (i.e. iPhone and MacBook accounting). Thus, Apple's management started to argue that non-GAAP numbers could be better indicators of the company's true financial performance and published

them for the year ending September 27, 2008<sup>3</sup>.

Apple’s CEO, Steve Jobs explained the need of issuing non-GAAP results through his following impressive statement:

*“ Today, we are introducing non-GAAP financial results, which eliminate the impact of revenue recognition under SOP 97-2. Because by its nature, GAAP application spreads the impact of iPhone’s contribution to Apple’s overall sales, gross margin and net income over two years, it can make it more difficult for the average Apple manager or the average investor to evaluate the Company’s overall performance. As long as our iPhone business was small relative to our Mac and music businesses, this did not really matter much, but the past quarter, as you heard, our iPhone business has grown to about \$4.6 billion, or 39% of Apple’s total business, clearly too big for Apple management or investors to ignore. As you can see, the non-GAAP financial results are truly stunning. By giving up SOP 97-2, adjusted sales for the quarter were \$11.68 billion, 48 percent higher than the reported revenue of \$7.9 billion, while adjusted net income was \$2.44 billion, 115 percent higher than the reported net income of \$1.14 billion. Adjusted net income that is more than double our reported income — if this isn't stunning, I don't know what is, all due to the incredible success of the iPhone 3G”* (Bowen and Kennedy 2010).

Finally, with the approval of Securities Exchange Commission (SEC), for the year ending September 27, 2008, Apple issued non-GAAP financial report including a reconciliation disclosure of GAAP and non-GAAP results. The following table is derived from the annual report of Apple and presents a comparative analysis of GAAP and non-GAAP financial results for the fourth quarter ended September 27, 2008 are as follows:

**Table 1. Apple’s GAAP versus Non-GAAP Partial Income Statement**

	For the Quarter Ended Sept 27, 2008			
	GAAP (\$)	Non-GAAP(\$)	Difference	%
Net Sales	7,895	11,682	3,787	48
Cost of Goods Sold	(5,156)	(7,131)	1,975	38
<b>Gross Margin</b>	<b>2,739</b>	<b>4,551</b>	<b>1,812</b>	<b>66</b>
Operating Income	1,442	3,254	1,812	126

<sup>3</sup> Apple’s fiscal year is the 52 or 53-week period that ends on the last Saturday of September

<b>Net Income</b>	<b>1,136</b>	<b>2,437</b>	<b>1,301</b>	<b>115</b>
<b>EPS</b>	1.26	2.69	1.43	113
<b>iPhone as % of Sales</b>	10	39		

Source: Apple Inc. Form 10-K/A Annual Report. <https://www.apple.com/pr/library/2008/10/21Apple-Reports-Fourth-Quarter-Results>

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As shown in Table 1, the reason why Apple's management decided to publish the non-GAAP financial statements especially in 2008 and started pushing FASB for a change can be easily explained with the significant adjustment of iPhone sales from \$0.8 billion to \$4.6 billion. The difference between GAAP and non-GAAP net income amounting to \$1.3 billion comes merely from the adjustments made to net sales and cost of goods sold for the reversal of deferred income and deferred expense accounts of the units shipped during the current and prior periods. To comply with SOP 97-2, Apple applied subscription accounting and deferred the total revenue and cost of goods sold of its iPhone 3G sales over a two-year period as there was no VSOE for free upgrades. This resulted in substantial impact (i.e. delay) on reported iPhone sales and an understatement of \$3.8 billion associated with inaccurate reflection of stock prices.

By giving up SOP 97-2 and issuing non-GAAP results, the stock price of Apple (AAPL) increased drastically by 18 percent (DeWitt 2009) in a few hours on the same trading day as the traders realized that Apple's earnings had been vastly undervalued by nearly \$3.8 billion. Hence, Apple took the leading role in pushing FASB for a new and fair revenue recognition guidance. A paragraph from the 8-page letter written by the Corporate Controller of Apple to the FASB's Emerging Issues Task Force on August 13, 2009 provided below was the initial signal of it:

*"The current rule often results in accounting that does not reflect the underlying economics of transactions and can result in financial reporting that lacks the transparency necessary to fully inform users making investment decisions."*

Betsy Rafael, Apple Vice President and Corporate Controller and Principal Accounting Officer (DeWitt 2009).

GAAP opponents defend that non-GAAP results are better indicators of Apple's true financial performance and parallel with its cash flow of \$24.5 billion. They assume the institutional investors find them more relevant for future analysis. On the

other side, GAAP proponents assert that the investors’ vital indicator for valuation and ratio analysis is cash revenue so non-GAAP results should not affect the economic value of Apple shares (Brochet et.al. 2013).

In 2008, primarily Apple and other various giant technology companies like Xerox, IBM, Dell, and Hewlett-Packard who were deeply criticisizing the impractical applications of SOP 97-2 wrote to FASB to make their voice heard about the need of a significant change in the accounting treatment of arrangements with multiple elements (Leone, 2009). After quite some time lobbying, FASB issued initially EITF Issue 00-21, “*Revenue Arrangements with Multiple Deliverables*” (EITF 00-21) with snap changes and then EITF Issue No. 08-1, “*Revenue Arrangements with Multiple Deliverables*” (EITF 08-1) with radical modifications for that specific industry.

### **2.3. EITF 00-21- Revenue Arrangements with Multiple Deliverables**

SOP 97-2 software revenue recognition rules have been modified firstly by FASB’s issuance of EITF Issue No. 00-21, “*Revenue Arrangements with Multiple Deliverables*” and then EITF 08-01 “*Revenue Arrangements with Multiple Deliverables*” due to its lack of sufficient guidance on multiple deliverables and vortex of VSOE requirement.

FASB’s issuance of EITF Issue No. 00-21, “*Revenue Arrangements with Multiple Deliverables*” essentially expanded the revenue recognition and fair value rules for this specific industry. Thus, it provided mainly the seperation guidance on when and how to separate the non-software elements in a multi-item arrangement containing an essential software which was missing in SOP 97-2. With the issuance of EITF 00-21, it became clear that any arrangements contain non-software deliverables would continue to be accounted under SOP 97-2 if the bundled software was not incidental, but the ones containing software that were incidental would start to be evaluated pursuant to the provisions of this guidance to determine the separability of hardware elements.

EITF 00-21 retained the difficult task of establishing fair value for each individual component in multiple deliverables but relaxed it by allowing the stand-alone value to be determined using widely-available external data such as the prices of competitors’ products, called “Third-Party Evidence” (TPE). TPE was the price

that a competitor or other third party sells a similar deliverable in a similar transaction or situation. By this conventional way, the immense problem of subscription accounting in SOP 97-2 would be less likely to happen in the absence of fair value. However, when the vendor was unable to separate the deliverables or determine the fair value of each element through VSOE or TPE, residual method was still accepted to be the best practice.

With respect to the modifications made for revenue recognition of arrangements containing multiple deliverables, an illustrative comparison of SOP 97-2 and EITF 00-21 is made through Table 2 below:

**Table 2. Comparison of SOP 97-2 and EITF 00-21**

SOP 97-2	EITF 00-21
<ul style="list-style-type: none"> <li>• Applicable for pure software without any adjunct products or services and also multiple-element arrangements containing software elements that are more than incidental to the product</li> </ul>	<ul style="list-style-type: none"> <li>• Applicable for multiple-element arrangements containing software that is incidental to the product</li> </ul>
<ul style="list-style-type: none"> <li>• VSOE is allowed for revenue allocation</li> </ul>	<ul style="list-style-type: none"> <li>• VSOE and TPE are allowed for revenue allocation</li> </ul>
<ul style="list-style-type: none"> <li>• When VSOE does not exist, residual method is used for allocation</li> </ul>	<ul style="list-style-type: none"> <li>• When VSOE does not exist, residual method is used for allocation</li> </ul>

Source: <https://www.bpmcpa.com>

#### **2.4. EITF 08-01- Revenue Arrangements with Multiple Deliverables**

Although EITF 00-21's impact was felt positively in an increasing number of companies delivering innovative bundling products, the complexity of revenue recognition was still existing. The primary reason was the lack of general guidance which would have been referred to by all economically similar entities doing business in that fast moving industry. That was to say, if a company entered into a multiple deliverables arrangement containing both software and non-software elements which the software was not essential, SOP 97-2 continued to be applied to software and software-related elements, but for the non-software elements, the new guidance (EITF 00-21) including separation criteria had to be used. Finally, on September 23, 2009, FASB ratified EITF 08-01 "*Revenue Arrangements with Multiple Deliverables*"

The Consensus Among Us Gaap And Ifrs Having Stemmed From Pressure Of The U.S.  
Software Industry: “Apple Rules

which superseded EITF 00-21 and became the general guidance for all types of multiple deliverables arrangements.

The issuance of EITF 08-01 was a direct solution for the major complaint of VSOE of fair value requirement in SOP 97-2. It replaced the term “fair value” with “selling price”. Thus, it removed the strict requirement of fair value to separate units and permitted a third tier of evidence, called “Estimated Selling Price” (ESP) when neither VSOE nor TPE was available. ESP criteria was more flexible than VSOE and TPE because it allowed a room for management’s judgement. For establishing ESP, market conditions and entity-specific factors such as market demand, profit margins generally realized in the industry, the existence of competitors and current economic trends were taken into account ([www.bpmcpa.com](http://www.bpmcpa.com)).

The addition of ESP has created a fair value hierarchy. Following the order in the hierarchy, companies were required to decide and clearly document whether they have used VSOE, TPE or ESP for recording their undelivered elements. If VSOE was available, it must be used for separation. If not, TPE must be used, and if neither were available, ESP should be used.

ESP was perceived as a revolution for companies that were complaining about VSOE for many years because it enabled the revenue recognition of undelivered elements over a different time period than its hardware. Hence, it puts an end to the residual method and therefore made it possible to accelerate the revenue recognition of delivered items.

To sum up, with the issuance of EITF 08-1, the companies were finally able to apply the appropriate accounting treatment for multiple deliverables which was unhealthy with the previous rules. Table 3 below presents the revolutionary modifications of EITF 08-01 with a comparison of EITF 00-21:

**Table 3. Comparison of EITF 00-21 and EITF 08-01**

EITF 00-21	EITF 08-01
<ul style="list-style-type: none"><li>requires objective and reliable evidence of fair value (VSOE/TPE) to separate undelivered elements</li></ul>	<ul style="list-style-type: none"><li>eliminates the strict requirement of fair value (VSOE/TPE) to separate undelivered elements</li></ul>

• VSOE or TPE is allowed for revenue allocation	• Adds ESP criteria and requires to comply with fair value hierarchy
• When neither VSOE nor TPE exists, residual method is used for allocation	• Eliminates residual method through fair value hierarchy

Source: <https://www.bpmcpa.com>

#### 2.4.1. Good News: APPLE Adopts New US GAAP Rules—EITF 08-01

Apple implemented EITF 08-01 immediately two weeks later; on October 1, 2009, as an early adopter. Under the new guidance, Apple was able to immediately recognize a bulk of revenue from its successful product, iPhone 3G hardware sales in the actual sales period, while the revenue recognition for its software that was based on ESP would be spread over two years. This new application would have three important consequences for Apple. First, Apple would be able to book revenue faster for its iPhone sales and therefore prevented the understatement of its earnings. Second, the revenue recognized and the cash generated would be parallel to each other (Blodget 2009). Third, a more apparent financial picture would be published for its current and potential investors. From the financial results provided in the annual report of Apple, Table 4 presents a comparative analysis of the year end Income Statements, 2009 and 2008, based on old US GAAP rules (SOP 97-2) and new US GAAP rules (EITF 08-01) adjusted, retrospectively:

**Table 4. Apple's Reported versus Adjusted Partial Income Statements**

	Fiscal Year Ended Sept 26, 2009			Fiscal Year Ended Sept 26, 2008		
	Reported (\$)	Amended (\$)	%	Reported (\$)	Amended (\$)	%
Net Sales	36,537	42,905	17	32,479	37,491	15
Cost of Goods Sold	(23,397)	(25,683)	10	(21,334)	(24,294)	14
<b>Gross Margin</b>	<b>13,140</b>	<b>17,222</b>	<b>31</b>	<b>11,145</b>	<b>13,197</b>	<b>18</b>
Operating Income	7,658	11,740	53	6,275	8,327	33
<b>Net Income</b>	<b>5,704</b>	<b>8,235</b>	<b>44</b>	<b>4,834</b>	<b>6,119</b>	<b>27</b>
<b>EPS</b>	<b>6.39</b>	<b>9.22</b>	<b>44</b>	<b>5.48</b>	<b>6.94</b>	<b>27</b>

Source: Apple Inc. Form 10-K/A Annual Report. <https://www.apple.com/pr/library/2008/10/21Apple-Reports-Fourth-Quarter-Results>

As a result of EITF 08-01 implementation Apple's annual net income adjusted by \$2.5 billion (44%), and \$1.3 billion (27%) in the positive direction during 2009 and 2008, respectively. These adjustments were made merely to net sales and cost of

goods sold for the reversal of deferred income and expenses. This was meaning that, before EITF 08-01, Apple was under-reporting its iPhone earnings for the last two years. The understated values under the “Reported” column caused Apple’s share price to inaccurately reflect the success of its most profitable product which had also confused the investors’ analyses until the company puts an end to subscription accounting with the release of EITF 08-01.

### **3. CONVERGENCE of US GAAP and IFRS FOR REVENUE RECOGNITION**

#### **3.1. Revenue Recognition For Multiple-Deliverables: US GAAP versus IFRS**

Although the issuance of EITF 08-01 was accepted to be the best solution for the revenue recognition of multiple deliverables, there still exists a long-lasting debate about the inconsistent applications of economically similar companies reporting under US GAAP and IFRS.

US GAAP has numerous set of strict rules, regulations and interpretations that lead not only to complexity and difficulty to understand and implement but also, incomparability and inconsistency between economically similar transactions. For example, various industry-specific revenue recognition rules such as SOPs were issued by AICPA (SOP 81-1 “*Accounting for Performance of Construction-Type and Certain Production-Type Contracts*”, SOP 91-1 “*Software Revenue Recognition*” and SOP 97-2 “*Software Revenue Recognition*” as a modification of SOP 91-1) and EITFs (EITF 00-21 “*Revenue Arrangements with Multiple Deliverables*”, EITF Issue 09-3, “*Certain Revenue Arrangements that Include Software Elements*” and EITF 08-01 “*Revenue Arrangements with Multiple Deliverables*” as a modification of EITF 00-21) released by the Emerging Issues Task Force since 1991.

On the other hand, IFRS holds a simple format focusing more on the principles, limited guidance on complex transactions and leaving greater room for management judgement. For companies reporting under IFRS, there exists only one single standard called, IAS 18 “Revenue” which is the primary source of authoritative guidance on revenue recognition. According to IAS 18, revenue is recognized when it is probable



that future economic benefits will flow to the entity and these benefits can be measured reliably. It simply means that a signed contract is not required to be fully executed for the recognition of revenue, as long as the reporting company is comfortable that there is agreement between the parties. IAS 18 provides limited guidance specifically on revenue recognition for multiple-element arrangements in the sense that, companies are required to separate each transaction into identifiable components to reflect the substance of the transaction and they are required to use the price regularly charged when an item is sold as the best evidence of fair value for revenue measurement. It also provides an alternative approach for pricing —“cost-plus margin”. Besides, the use of the residual method in IAS 18 is acceptable to allocate arrangement consideration.

The overview of US GAAP and IFRS applications for revenue recognition of multiple deliverables is presented in Table 5 below:

**Table 5. Overview of US GAAP and IFRS For Multiple-Deliverables**

US GAAP- EITF 08-01	IAS 18
<ul style="list-style-type: none"> <li>• Revenue arrangements with multiple deliverables are separated into different units of accounting if the deliverables in the arrangement meet all of the specified criteria outlined in the guidance. Revenue recognition is evaluated independently for each separate unit.</li> </ul>	<ul style="list-style-type: none"> <li>• The revenue recognition criteria usually is applied separately to each transaction. In certain circumstances, however, it is necessary to separate a transaction into identifiable components to reflect the substance of the transaction. At the same time, two or more transactions may need to be grouped together when they are linked in such a way that the commercial effect cannot be understood without reference to the series of transactions as a whole.</li> </ul>

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<ul style="list-style-type: none"> <li>• Revenue measurement for multiple-elements arrangements is based on fair value hierarchy. The hierarchy requires the selling price to be based on VSOE if available, TPE, if VSOE is not available, or ESP if neither VSOE nor TPE is available. An entity must make its best estimate of selling price in a manner consistent with that used to determine the price to sell the deliverable on a stand-alone basis. No estimation methods are allowed; but examples include the use of cost-plus margin.</li> </ul>	<ul style="list-style-type: none"> <li>• The price that is regularly charged when an item is sold separately is the best evidence of the item’s fair value. At the same time, under certain circumstances, a cost-plus margin approach to estimating fair value would be appropriate under IFRS.</li> </ul>
<ul style="list-style-type: none"> <li>• Residual method is prohibited.</li> </ul>	<ul style="list-style-type: none"> <li>• Residual method may be acceptable to allocate arrangement consideration.</li> </ul>

Source: IFRS and US GAAP: Similarities and Differences 2015, PwC,

<http://www.pwc.com/us/en/cfodirect/assets/pdf/accounting-guides/pwc-ifrs-us-gaap-similarities-and-differences-2015.pdf> (Access Date: 24.03.2016).

### 3.2. New Converged Rules: IFRS 15/ASC 606 “Revenue From Contracts with Customers”

Even the latest US GAAP guidance (EITF 08-01) helped companies to recognize revenue easier in that industry, the authorities, companies and financial statement users feel uncomfortable about the comparability of economically similar entities in the global capital markets that are reporting under US GAAP or IFRS.

Therefore, the consensus among them was that, FASB should move closer to international standards for the following reasons:

- No requirement of VSOE/TPE/ESP in IFRS allows companies to use the price regularly charged when an item is sold or the cost-plus margin with regard to the measurement of revenue for bundled software,

- The process of price determination leaves a greater scope for management judgement,
- IFRS's being "principles" based more than "rules" based,
- No ambiguities and diversities within the IASB framework.

Finally, on May 28, 2014, FASB and IASB issued a converged standard on recognizing revenue in contracts with customers that will lead the whole industry. With the issuance of this new standard, contracts with customers that are economically similar will be accounted for on a comparative and consistent basis.

The converged revenue standard, IFRS 15 "*Revenue from Contracts with Customers*" superseded all existing FASB's Rules (EITF 08-01, EITF 09-03, SOP 97-2) and IAS 11 and IAS 18. It will be applied for all contracts with customers except the followings:

- IAS 17- Leases
- IFRS 4- Insurance Contracts
- Financial instruments and other contractual rights or obligations within the scope of IFRS 9- Financial Instruments, IFRS 10- Consolidated Financial Statements, IFRS 11- Joint Arrangements, IAS 27- Separate Financial Statements and IAS 28- Investments in Associates and Joint Ventures
- Insurance contracts within the scope of IFRS 4- Insurance Contracts

The new converged standard — IFRS 15 will use the following new five-step model (FASB ASC 606-10-05-4) :

#### **Step 1: Identify the Contract with a Customer**

A contract with a customer will be within the scope of IFRS 15 if all the following conditions are met: (IFRS 15:9)

- the contract has been approved by the parties to the contract;
- each party's rights in relation to the goods or services to be transferred can be identified;

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- the payment terms for the goods or services to be transferred can be identified;
- the contract has commercial substance; and
- it is probable that the consideration to which the entity is entitled to in exchange for the goods or services will be collected.

To determine whether a contract is valid or not, the collectibility of the amount of the consideration should be assessed based only on the customer’s ability and intention to pay. If the assessment results with a default risk, then the revenue cannot be recognized and any consideration received is recorded as a liability (unearned revenue) until either of the following events has occurred:

- The entity has no remaining performance obligations and all or substantially all the consideration for the performance obligations in the contract has been received and is non-refundable (IFRS 15.15(a)).
- The contract is terminated and the consideration received is non-refundable (IFRS 15.15(b)).

**Step 2: Identify the Performance Obligations In the Contract**

At the inception of the contract, the entity should assess the goods or services that have been promised to the customer, and identify as a performance obligation (IFRS 15.22).

Especially the companies that are selling multiple-deliverables within one contract need to carefully assess whether the deliverables it has promised to the customer are separable or not. If a customer can benefit from a promise on its own, separate from the other and the company’s promise to transfer the good or service to the customer is separately identifiable from other promises in the contract, it should be considered as separate performance obligation (IFRS 15.27). On the other hand, the goods or services that are highly interrelated will totally be accounted for a single performance obligation (IFRS 15.23). In other words, if the goods and services promised to be delivered are used as inputs to produce the output for which the customer has contracted, a single performance obligation exists.

### Step 3: Determine the Transaction Price

The transaction price is the amount to which an entity expects to be entitled in exchange for the transfer of goods and services including both fixed and variable consideration. The key factors in determining the transaction price are, variable consideration, time value of money (if a significant financing component exists), non-cash consideration and any consideration payable to the customer (IFRS 15.47).

Usually, the transaction price is a fixed amount, but it may include estimates of variable such as discounts, rebates, refunds, credits, price concessions, incentives, performance bonuses, penalties or other similar items. That is to say, more judgment is required for accurate prediction of measuring revenue. The companies are required to make this estimation at the inception and include such amounts in the transaction price. Variable consideration is estimated using either an “expected value” or “most likely amount” method. Expected value method is widely used among the companies entering various similar contracts simultaneously whereas the latter one is suitable for making an estimation among two alternatives.

When the period between the company’s transfer of goods and services and the customer’s payment is more than one year, a significant financing component will arise in the contract. In assessing the possibility of this component, an exercise of judgment should be made as there is no threshold for this. In the existence of financing component, companies are required to adjust the transaction price for the time value of money using the discount rate that would be used if entered into a separate financing transaction with the customer. The financing component will be accounted for in accordance with IFRS 9- Financial Instruments.

With respect to the non-cash consideration, IFRS 15 requires that, fair value should be used for the measurement of the consideration received. If fair value cannot be reasonably estimated, the stand-alone selling price of the good or service promised in the contract will be used as a reference for the measurement of the consideration.

The transaction price is adjusted for the consideration payable to a customer that is payment of a discount or refund in the form of coupons, vouchers, signing bonuses, slotting and listing fees. They are accounted for as a reduction of the transaction price

and therefore revenue.

#### **Step 4: Allocate the Transaction Price to the Performance Obligations in the Contract**

Where a contract has multiple performance obligations, the transaction price will be allocated to each performance obligation in the contract by reference to their relative standalone selling prices (IFRS 15:74). If a standalone selling price does not exist, the company will need to estimate it through the following methods (IFRS 15:79):

- Adjusted market assessment approach (reference to competitors’ prices and entity-specific costs and margins)
- Expected cost plus a margin approach (forecasting expected costs adjusted with a profit margin)
- Residual approach (only when the selling price is highly variable or unceratin).

#### **Step 5: Recognize Revenue when (or as) the Reporting Entity Satisfies a Performance Obligation**

Revenue is recognized only when the company satisfies a performance obligation by transferring a promised good or service to a customer. “Control” is the main driver for revenue recognition and it passes from the company to the customer either over time (typically for promises to transfer services to a customer) or at a point in time (typically for promises to transfer goods to a customer) (IFRS 15:32). Companies recognize revenue overtime when their customers receive the benefits from goods or services simultaneously otherwise, it is recognized when control is passed at a certain point in time. Different from IAS 18, revenue is recognized when the control is obtained substantially by the customer.

#### **4. CONCLUSION**

The primary comprehensive rule for software revenue recognition was SOP 97-2; “*Software Revenue Recognition*” based on mainly pure and traditional type of software arrangements that include licensing, selling, leasing or marketing “standard”

software and software-related units. Meanwhile, the subscription accounting in SOP 97-2 resulted in significant misleading financial results for those US companies earning good money out of these “multiple deliverables” arrangements which was the case for Apple. In accordance with subscription accounting, Apple had to defer the total revenue and cost of goods sold for its iPhone sales on a straight-line basis over the iPhone’s useful life. This resulted in understatement of revenue in the amount of \$3.8 billion for its best selling product.

Afterwards, Apple took the leading role in pushing FASB for a new and fair revenue recognition guidance. SOP 97-2 software revenue recognition rules were modified firstly by FASB’s issuance of EITF Issue No. 00-21, “*Revenue Arrangements with Multiple Deliverables*” and then EITF 08-01 “*Revenue Arrangements with Multiple Deliverables*” due to its lack of sufficient guidance on multiple deliverables and vortex of VSOE requirement. On September 23, 2009, FASB ratified EITF 08-01 “*Revenue Arrangements with Multiple Deliverables*” which superseded EITF 00-21 and became the general guidance for all types of multiple deliverables arrangements. With the issuance of EITF 08-01, Apple was able to record iPhone hardware sales upfront in the actual sales period and defer only the bundled software over its useful life.

Even the latest US GAAP guidance (EITF 08-01) helped companies to recognize revenue easier, a comparability problem was still existing between the economically similar entities in the global capital markets that are reporting under US GAAP or IFRS such as Apple and Samsung. Samsung was launching the same software updates with no requirement of subscription accounting and revenues were reflecting the actual earnings as they were recognized.

Finally, on May 28, 2014, the FASB and the IASB issued a converged standard on recognizing revenue in contracts with customers that will lead the whole industry. The combined revenue standard, IFRS 15 “*Revenue from Contracts with Customers*” superseded all existing FASB’s Rules (EITF 08-01, EITF 09-03, SOP 97-2) and IAS 11 and IAS 18. With the issuance of this new standard, contracts with customers that are economically similar started to be accounted for on a comparative and consistent basis in that particular multiple-deliverables industry.

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