

### IT Outsourcing Strategy A study on the strategic adoption of cloud computing

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# Abstract

In today's hypercompetitive business environment, organizations require IT systems that constantly evolve to meet their ever-changing requirements. This has led many organizations to look to Cloud Computing services as a means to engender greater business agility. However, while extensive studies have been made in the areas of IT Outsourcing strategy, and the general benefits of Cloud Computing are widely appreciated, there appears to be little discourse on how Cloud Computing can be leveraged for the enablement a company's IT Outsourcing strategy. In this research, the key business drivers behind IT Outsourcing, and the possible benefits of Cloud Computing have been analyzed and aligned to present a theoretical framework for understanding the strategic adoption of Cloud Computing. Using EasyJet's IT Outsourcing strategy as case study, the practical implications of adopting Cloud Computing were examined. In practice, Cloud Computing services enable firms to have superior Scalability of Resources, and a greater Focus on Innovation. Further recommendations are given on how different types of companies may incorporate Cloud Computing initiatives as part of their IT Outsourcing strategy.

## 1. Introduction

Companies are constantly evolving in order to meet the ever-changing needs of their customers. In today's increasingly globalized economy, companies are facing an intense state of Hypercompetition from competitors around the world (D'aveni, 2010). Such business landscapes require firms to be able to adapt, scale, and innovate quickly to continually differentiate themselves from competitors. Traditionally, enterprise systems have often been developed using large-scale on-premises IT resources to provide sufficient capacity and redundancy for organizations to offer reliable services to consumers (Kim, 2009). However, such setups are cost prohibitive to smaller firms, and often very expensive to operate, maintain, upgrade or modify once implemented (Leavitt, 2009). Hence, such IT Outsourcing approaches may not allow companies to be nimble enough to grapple with today's competitive business environment. Cloud Computing attempts to alleviate this issue by offering the proposition of on-demand access to unlimited computing resources and managed IT infrastructure (Bhardwaj, Jain, & Jain, 2010). Indeed, the popularity of Cloud Computing has seen a steady increase since year 2009 (Zhang, Cheng, & Boutaba, 2010). In fact, Gartner predicts that IT spending on Cloud Computing is projected to reach \$216 billion by the year 2020, as companies are looking to adopt cloud-first IT Outsourcing strategies (Gartner, 2016).

However, companies that sign up for Cloud Computing services often do not fully realize the practical implications and benefits of Cloud Computing. Nor do they understand how Cloud Computing can be leveraged tactically as part of their IT Outsourcing strategy. A survey conducted by iland revealed that 88% of Cloud Computing projects encounter unexpected challenges (Ramel, 2014). Furthermore, larger organizations that have made significant prior investments in on-premises IT infrastructure, find it intimidating to migrate their systems into the cloud (Misra & Mondal, 2011). As a result, bigger companies often overlook the possibilities of employing Cloud Computing to boost organizational performance. Although IT Outsourcing strategy has been extensively examined in academia, and the generic benefits of Cloud Computing are thought to be well understood, there appears to be little discussion on

how Cloud Computing can be specifically implemented to enable a company's IT Outsourcing strategy (Marston, Li, Bandyopadhyay, Zhang, & Ghalsasi, 2011).

Therefore, in order to further the discourse in this domain, the objective of this research is three-fold. First, is to analyze the key drivers behind IT Outsourcing as well as the possible benefits of adopting Cloud Computing. Second, is to develop a framework for understanding the strategic adoption of Cloud Computing. Third, is to examine the practical implications of adopting Cloud Computing. In the first portion of this paper, existing literature put forth in the subject domain shall be reviewed, so as to analyze the strategic drivers behind IT Outsourcing, and the potential benefits that Cloud Computing can bring about. A synthesis of these two spheres of knowledge will culminate into a framework for understanding how firms can incorporate Cloud Computing as part of their IT Outsourcing strategy. Next, through analysis of EasyJet's case, this research shall examine the practical implications of adopting Cloud Computing and present recommendations on how firms may incorporate Cloud Computing initiatives as part of their IT Outsourcing strategy.

# 2. Literature Review

## 2.1 IT Outsourcing Strategy

A business strategy is broadly defined as a firm's high-level plan for achieving specific business objectives (Campbell, Edgar, & Stonehouse, 2011). An IT Outsourcing strategy, is hence a company's plan and approach to the procurement, management, and governance of external IT resources in order to achieve specific business objectives. IT Outsourcing has been constantly gaining popularity over the years. Gartner reports that in 2016, the global IT Outsourcing market grew by 5.4% to reach about \$283.5 billion (Gartner, 2017). However, it should be recognized that companies turn to IT Outsourcing for different goals and purposes (Shirur, 1999). And these different objectives require different treatment in terms of priorities and management approach. It is therefore crucial for organizations to be cognizant of the three different key drivers of IT Outsourcing. They are: Tactical Outsourcing, Strategic Outsourcing, and Transformational Outsourcing (Kedia & Lahiri, 2007). The characteristics of these three key drivers are summarized in Figure 1.

Tactical	Strategic	Transformational
• Outsourcing in response to a specific problem (Javalgi, Dixit, & Scherer, 2009)	• Outsourcing to enable a broader business plan (Quinn, 1999)	Outsourcing in order to transform the business (Linder, 2004)

Figure 1: Key Drivers of IT Outsourcing

### **Tactical Outsourcing**

Tactical Outsourcing refers to outsourcing arrangements that stem from a company's need to address a specific problem (Javalgi, Dixit, & Scherer, 2009). Primary examples of such

motivations include, cost reduction, requirements for higher quality of services that are unavailable in-house (Kedia & Lahiri, 2007), lack of resources, and lack of skills or management capabilities (Brown & Wilson, 2007). Essentially, this approach to IT Outsourcing attempts to help organizations benefit from better services using less capital expenditure, thereby helping them to achieve the "do more with less" business goal (Gilley & Rasheed, 2000).

### **Strategic Outsourcing**

Strategic Outsourcing looks beyond cost optimization towards a greater focus on broader longterm business objectives (Quinn, 1999). For example, the need to focus and develop core business competencies, and the need to react to opportunities or competition in the business environment (Barney, 1995). Therefore, strategic outsourcing is often used as part of the process of redefining the organization and its resources in order to free up management staff to refocus on the core business activities (Sanders, Locke, Moore, & Autry, 2007).

### **Transformational Outsourcing**

Transformational Outsourcing involves outsourcing to enable rapid improvement, reshaping, and transformation of the business (Linder, 2004). Such transformations of business processes are often targeted at overhauling old business practices, turning around failing business models, or speeding up organizational innovation (Kedia & Lahiri, 2007). Aside from just cost savings and concentrating on core competencies, what differentiates Transformational Outsourcing is that it enables companies to build long-term sustainable competitive advantage by placing greater emphasis on company innovation (Li, Liu, Li, & Wu, 2008).

### 2.2 Cloud Computing

Cloud Computing, as defined by the National Institute of Standards and Technology (NIST), is "a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction" (Mell & Grance, 2011, p. 2). There are primarily three service models of Cloud Computing. They are: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). Infrastructure as a Service refers to the on-demand provisioning of fundamental computing resources such as processing, storage and networking capabilities. Users of IaaS services do not manage physical hardware but retain granular controls over their configurations. Platform as a Service refers to the provision of tools and resources such as software development frameworks and libraries, for building and deploying applications. PaaS users deploy their applications onto the service and do not control the underlying managed infrastructure. Software as a Service refers to on-demand fully developed applications that are accessed over the Internet. SaaS consumers do not manage the platforms and infrastructure that the applications operate on (Voorsluys, Broberg, & Buyya, 2011).

In essence, IaaS, PaaS and SaaS services provide their consumers with on-demand access to the various layers of computing resources depending on their requirements. Organizations that leverage these Cloud Computing services, can decide on the level of control required to implement the solutions that address their business needs, and leave the management of underlying IT resources to the Cloud Computing service provider (Boss, Malladi, Quan, Legregni, & Hall, 2007). This approach to implementing solutions represents a radical change in responsibilities for companies that adopt Cloud Computing services. Emphasis is shifted from acquisition and installation of supporting IT resources, to the implementation and operationalization of the actual solution (Babcock, 2010). As such, Cloud Computing can bring about three broad benefits to organizations: Flexibility (Vaquero, Rodero-Merino, Caceres, & Lindner, 2008), Efficiency (Pocatilu, Alecu, & Vetrici, 2010), and Cost Effectiveness (Kondo, Javadi, Malecot, Cappello, & Anderson). A summary of these benefits is shown in Figure 2.

Flexibility	• Companies have access to unlimited computing capabilities, and can scale resources to meet demand (Chieu, Mohindra, Karve, & Segal, 2009)	
Efficiency	<ul> <li>Companies are able to deploy applications quickly, hence shortening the time to market of their solutions</li> </ul>	
Linciency	(Guha & Al-Dabass, 2010)	
Cost Effectiveness	•Cloud services are costed using a pay-per-use model, thus eliminating resource wastage and reducing costs (Gong, Liu, Zhang, Chen, & Gong, 2010)	

Figure 2: Benefits of Cloud Computing

### Flexibility

Cloud Computing services provide organizations with an on-demand access to a shared pool of resources. The Cloud Computing vendors possess large-scale datacenters with a high enough surplus capacity to provision any amount of computing resources that their consumers desire (Wang & Ng, 2010). Therefore, companies that choose to adopt Cloud Computing, have on-demand access to near limitless amounts of computing capabilities (Chieu, Mohindra, Karve, & Segal, 2009). This allows the companies to hence scale their resources accordingly to match demand. It also grants them the Flexibility to develop and test solutions quickly without requiring ownership of such datacenter assets (Chohan, et al., 2009).

### Efficiency

Companies that develop solutions using Cloud Computing services, are not required to be overly concerned about the underlying resources and infrastructure supporting the application (Lawton, 2008). Their developers can focus on the designing and building of the actual solution, and simply deploy their application directly onto the Cloud Computing service (Boniface, et al., 2010). This process removes the need for the acquisition and installation of additional supporting IT assets that are conventionally required for enterprise software development. The instant availability of such on-demand computing capabilities greatly shortens the software deployment process, hence shortening the company's time to market (Guha & Al-Dabass, 2010). This therefore provides companies with a higher level of Efficiency in solving their business challenges.

### **Cost Effectiveness**

IT resource forecasting is an important area of concern for companies (Hoffmann, Trivedi, & Malek, 2007). Businesses often experience periods of high demand and periods of low demand. Traditionally, these companies must invest in enough IT resources in order to support the periods of high demand. This naturally creates a problem of overprovisioning of computing resources during the periods of lower demand. The benefit of Cloud Computing services is that they are costed using a pay-per-use model (Armbrust, et al., A view of cloud computing, 2010). Companies only pay for the IT resources that they require, and they can simply deprovision excess capacity when it is not required. This helps to reduce resource wastage, and hence helps the organization to optimize operating costs and improve the Cost Effectiveness of their IT spending (Gong, Liu, Zhang, Chen, & Gong, 2010).

## 2.3 Strategic Adoption of Cloud Computing

Given the needs of organizations to engender the key business drivers behind IT Outsourcing, and the potential for the benefits of Cloud Computing to enable these drivers, a case can hence be made for the strategic adoption of Cloud Computing. This research attempts to juxtapose the benefits of Cloud Computing, with the key drivers of IT Outsourcing, in order to construct a theoretical framework for understanding the strategic adoption of Cloud Computing. A summary of this analysis is tabulated in Table 1.

	Tactical	Strategic	Transformational
Flexibility	Elastic nature of the	Cloud paradigm leads	Provides access to near
	cloud allows	to lesser integration	unlimited computing
	companies to react	issues as organizations	resources, allowing
	quickly and scale	incrementally develop	companies to freely
	computing resources	and add on resources,	experiment with new
	according to short-	features, capabilities to	business models and
	term demands.	meet evolving needs.	capabilities.
	(Avram, 2014)	(Knorr & Gruman, 2008)	(Mell & Grance, 2011)
Efficiency	Solutions can be	Gives firms access to	Reduces risks as there
	deployed quickly,	the latest technologies	are lesser upfront
	allowing companies to	and best practices,	commitments, allowing
	efficiently address	allowing them to focus	firms to just focus on
	short-term business	on core competencies.	the innovation. (Martens
	needs. (McAfee, 2011)	(Popović & Hocenski, 2010)	& Teuteberg, 2012)
Cost Effectiveness	On-demand approach provides short-term cost savings as there is lesser need for any upfront investments. (Armbrust, et al., 2009)	Can reduce operation costs in long-run as management of non- core resources and manpower are outsourced. (Berl, et al., 2010)	Allows companies to try out new development prototypes without heavy infrastructure investments. (Rosenthal, et al., 2010)

Table 1: Framework for understanding the strategic adoption of Cloud Computing

### **Tactical Outsourcing**

Cloud Computing provides Flexibility through on-demand access to a shared pool of unlimited computing resources. This allows companies to scale their operations up or down and react quickly to meet short-term changes in demand (Avram, 2014). Cloud Computing services bring about Efficiency by allow solutions to be deployed quickly to efficiently address short-term business needs without having to grapple with IT infrastructure considerations (McAfee, 2011). Furthermore, Cloud Computing also helps companies to achieve cost savings in the short-term as it reduces the need of any significant upfront investments in IT resources (Armbrust, et al., 2009). This combination of Flexibility, Efficiency and Cost Effectiveness is critical to Tactical Outsourcing efforts as it allows for a wide range of problems to be solved quickly, effectively and inexpensively.

### **Strategic Outsourcing**

Developing solutions using the Cloud Computing paradigm often leads to lesser integration challenges, as the individual applications are loosely coupled but yet have the Flexibility to be choreographed to provide richer user experiences (Knorr & Gruman, 2008). This therefore allows companies to focus less on integration issues and more on the incremental development and improvement of their services. Additionally, adopting Cloud Computing solutions such as Software as a Service (SaaS) packages, allows firms the Efficiency of having access to the latest technologies and best practices even without possessing such specialized human resource talents (Popović & Hocenski, 2010). Cloud Computing solutions also improve Cost Effectiveness in the long-run, as the management of the underlying IT infrastructure is outsourced to the service provider (Berl, et al., 2010). In sum, Cloud Computing allows organizations to focus on their core business.

### **Transformational Outsourcing**

The impetus behind Transformation Outsourcing, is to enable rapid improvement, reshaping, and transformation of the business (Linder, 2004). The benefits of Cloud Computing align well with such goals, as it provides companies with the Flexibility of access to near unlimited computing resources, hence enabling them to freely experiment with new business models and capabilities (Mell & Grance, 2011). It improves the Efficiency of innovation efforts, as developers iteratively develop new solutions without risking upfront infrastructure commitments (Martens & Teuteberg, 2012). Moreover, Cost Effectiveness of this approach makes it easier for organizations to conduct pilot trials of new prototypes without any significant infrastructure investments (Rosenthal, et al., 2010).

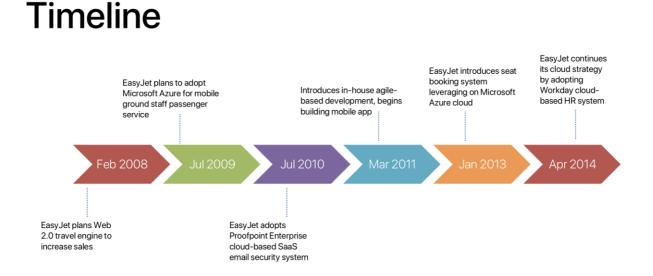
## 3. Case Description

### 3.1 Background

In this paper, we shall be examining the case of EasyJet Airline Company Limited. EasyJet is a British low-cost airline that operates domestic and international scheduled flights on over 820 routes in more than 30 countries, making them the second largest airline in Europe (Civil Aviation Authority, 2014). Despite being a low-cost airline, EasyJet puts a heavy emphasis on IT to facilitate its operations and differentiate itself from the competition. Up until 2009, the airline had spent efforts in developing its own IT infrastructure to support company systems, such as a website that leverages on Web 2.0 technologies to allow customers to plan complete holiday itineraries (Kamath, 2008).

However, EasyJet began to face several issues that needed to be addressed. Firstly, their customer satisfaction level and reputation were on the decline, as they were unable to offer new features such as allocated seating, that customers really wanted (Venkatraman, 2014). Secondly, their email systems were constantly being attacked by viruses and spam email (Thomas, 2005). Thirdly, they also had to deal with high operation costs at airports that charge them for every service desk that they require, which puts a strain on the low-cost airline's profits (Saran, 2009).

The company adopted an IT Outsourcing strategy that took a "hybrid" approach to address these multiple issues, by keeping their existing on-premises systems while extending it with new capabilities by investing in Cloud Computing solutions. Through this approach, the company was able to achieve greater Flexibility, Efficiency, and Cost Effectiveness. Furthermore, customer satisfaction was also greatly improved (Venkatraman, 2014). By analyzing EasyJet's Cloud Computing initiatives taken over the years, we will be able to better understand the practical implications that Cloud Computing can have on IT Outsourcing strategy and glean insights on how companies can adopt similar strategies to improve organizational performance.



## 3.2 IT Outsourcing Strategy

Figure 3. EasyJet IT Outsourcing Timeline

EasyJet's IT Outsourcing strategy involves a "hybrid" approach, where they keep existing systems that continue to work well and add new features and services in the cloud to support areas where they are lacking (Venkatraman, 2014). Their IT transformation started in 2008,

when EasyJet announced its plans to adopt Web 2.0 technologies to develop a website that would allow customers to plan complete holiday itineraries rather than just book flights (Kamath, 2008). This represented a fundamental shift in strategy for the airline carrier, as it looked to place increasing efforts on adopting technology to create rich user experiences and add value for its customers. The website was developed using on-premise IT infrastructure running Windows Server and SQL Server (Kamath, 2008). In 2009, EasyJet announced plans to implement mobile passenger services to allow its ground staff to offer services such as upgrading of customer seats or paying for excess baggage from mobile devices (Saran, 2009). Airport operators charge airlines for each desk that they require, furthermore the ticketing desks and the check-in desks, each require a separate mainframe terminal. This solution, was hence targeted at solving this particular issue, by reducing the number of desks and queues required. In contrast to earlier efforts, the mobile passenger services system was implemented using Microsoft Azure Cloud, which allowed them to easily expose core services to enterprise mobile devices, without having to set up additional configuration and infrastructure (Saran, 2009).

In 2010, EasyJet rolled out Proofpoint's cloud-based software-as-a-service e-mail security system in order to improve security and address virus and spam attacks on their email services (Ashford, 2010). The airline, which processes an average of 50000 emails in a day (Thomas, 2005), managed to significantly reduce spam, and block out about 8000 viral messages every month. Furthermore, they had managed to achieve a 35% cost savings over a three-year period and reduce their IT support overheads (Ashford, 2010). In an interview in 2011, EasyJet CIO Trevor Didcock revealed that their IT team had begun to experiment with new in-house development using agile processes. For example, EasyJet introduced a flexible fare model for business travelers, which allows unlimited changes to ticket details within a four-week window – one week before and up to three weeks after the original booked travel date (Mari, 2011), a complete revamp of their existing models. In the same year, they also announced that they had begun working on their mobile app. EasyJet managed to decrease time to market by developing these new applications in the cloud for greater business agility (WEF, 2015), while keeping costs low and maintaining a relatively lean IT team (Venkatraman, 2014).

Being an early adopter of Microsoft Azure Cloud since their successful implementation of the mobile passenger services system in 2008 (Saran, 2009), EasyJet continued its partnership with Microsoft to build a scalable infrastructure that it could use to introduce new features quickly and affordably through the cloud (WEF, 2015). In 2013, EasyJet embarked on an allocated seating system project on Azure cloud (Venkatraman, 2014). The cloud infrastructure enabled the developers to efficiently scale infrastructure capacity up and down as needed to test out the service without any significant investments in physical hardware. Furthermore, the project turned out to be a success, as it improved customer satisfaction by 5% and directly contributed 7% to EasyJet's revenue growth in 2013 (Venkatraman, 2014). Continuing on their approach to buying cloud-based services and fully-managed services wherever possible (Mari, 2011), so as to focus on core areas, in 2014 EasyJet adopted the Workday Human Capital Management (HCM) system to manage its 8000-strong workforce as well as to provide better HR and talent management (Finnegan, 2014). Through the Workday HCM system, EasyJet was able to gain new reporting and analytics capabilities and allow for staff to use the HR application from mobile devices (Flinders, 2014).

# 4. Discussion

## 4.1 Strategic Adoption of Cloud Computing

We have seen how EasyJet's IT Outsourcing strategy had played out over the years. EasyJet chose to turn to Cloud Computing to support and bolster legacy systems that, while still functional, were too inflexible to deliver new value-added services for customers. Additionally, their strategy moving forward, appears to be one of focusing on core competencies and innovation, while outsourcing auxiliary services to third party Cloud Computing vendors. Using our understanding of the strategic adoption of Cloud Computing as highlighted in section 2.3, we shall now analyze how the adoption of Cloud Computing services played a crucial role in the enablement of EasyJet's IT Outsourcing strategy. A summary of the analysis of EasyJet's Cloud Computing initiatives is tabulated in Table 2.

	Tactical	Strategic	Transformational
Flexibility	EasyJet's legacy system could not provision new services like allocated seating, so they added new features in the cloud to address customer satisfaction (Venkatraman, 2014)	EasyJet partnered Microsoft as an early adopter of Azure to build a scalable infrastructure that it can use to introduce new features quickly and affordably (WEF, 2015)	EasyJet introduced a new flexible fare model for business travelers, that allows unlimited changes online to ticket details within a 4-week window (Mari, 2011)
Efficiency	EasyJet rolled out Proofpoint e-mail security, archiving and data loss prevention system, to quickly combat viruses and spam (Ashford, 2010)	EasyJet adopted Workday Human Capital Management (HCM) software to provide better HR and talent management (Flinders, 2014)	EasyJet managed to decrease time to market by developing new applications in the cloud for greater business agility (WEF, 2015)
Cost Effectiveness	EasyJet mobilized ground staff passenger service to reduce airport charges and improve service (Saran, 2009)	EasyJet operates a lean IT team and spends only 0.5% revenue on IT compared to the industry average of 2% (Venkatraman, 2014)	EasyJet leverages on its cloud platform to do agile-based development of new services and systems (Mari, 2011)

Table 2: Analysis of EasyJet's Cloud Computing Initiatives

### **Tactical Outsourcing**

EasyJet was facing a problem with poor customer satisfaction. Customers really wanted allocated seating, but its existing reservation system, which it had built over the years with huge capital investment, did not have the ability to provision this new feature without having to first invest in additional datacenter facilities and infrastructure, which is highly cost prohibitive. Adopting Cloud Computing enabled EasyJet the Flexibility to implement such value-added services on top of existing systems without having to forgo the investments already made in the legacy systems. In order to address the problem of e-mail security, and to quickly combat viruses and spam, EasyJet simply adopted Proofpoint's cloud-based solution.

This approach provided them with the Efficiency of addressing an important issue without any additional investments into IT security resources, thereby allowing them to focus their attention on core competencies. Apart from the inherent Cost Effectiveness of the Cloud Computing approach, such as the ability introduce new services without heavy infrastructure investments, EasyJet was also able to cut operation costs by reducing Airport charges through the innovative introduction of the mobile passenger services system.

### **Strategic Outsourcing**

Cloud Computing supports EasyJet's broader business plan of outsourcing ancillary services to third party providers to allow them to focus solely on their core business areas. Their partnership with Microsoft to adopt the Azure platform allowed them to keep their investments in on-premises datacenters low, while still supporting the Flexibility for them to execute strategic solutions by having a scalable infrastructure to introduce new features quickly and affordably. Additionally, they are not required to be experts in areas which are clearly not their core competencies. The adoption of the Workday Human Capital Management (HCM) cloud-based solution, gave EasyJet the Efficiency to incorporate HR best practices from the industry to provide better HR and talent management, without needing a specialized team to develop proprietary HR operations from the ground up. The Efficiency of such an approach to IT Outsourcing strategy, also meant that EasyJet was able to operate on a very lean IT team, thereby bringing Cost Effectiveness to the organization. EasyJet reported that it operates a relatively lean IT team and spends only 0.5% revenue on IT compared to the industry average of 2% (Venkatraman, 2014).

### **Transformational Outsourcing**

As the events unfolded throughout the years, we have seen how EasyJet's business has transformed and evolved through the adoption of Cloud Computing. They were able to achieve significant Flexibility in the types of new services they were introducing. For instance, the new flexible fare model for business travelers, which allowed for unlimited changes to ticket details within a four-week window, was a complete revamp of their existing models and likely very challenging to implement if they had to modify the underlying existing legacy systems. The Efficiency brought about by their adoption of the Microsoft Azure Cloud platform played a pivotal role in enabling EasyJet to decrease time to market of developing new applications and services by allowing its developers to quickly and easily test out concepts in the cloud without any commitments on infrastructure development. The Cost Effectiveness of such an approach also facilitated the team in their adoption of agile development methodologies, as they now had the ability to work on many smaller initiatives and test concepts without incurring heavy costs and risks to the organization.

### 4.2 Practical Implications

#### **Scalability of Resources**

One of the key features of Cloud Computing, particularly in Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) products, is the ability to have on-demand access to near unlimited computing resources. Such convenience brings about several practical benefits to organizations. Firstly, it simplifies the process of IT resource planning. Companies no longer have to emphasize on getting accurate predictions on user volume and traffic data. IT infrastructure can simply be scaled up or down according to demand. If there is greater demand for the service in a given period, more resources can be provisioned. If there is less demand in another period, the company can cut down the resources to reduce costs. This was evident in EasyJet's mobile passenger services system, where they no longer needed a fixed amount of mainframe computers tied to service desks. They mobilized their ground staff to provide the same customer services and could simply deploy more staff and mobile devices during periods of higher volume.

Secondly, it removes the need for extensive upfront investments in IT resources, thereby reducing risks. In EasyJet's case, their legacy systems were unable to provision new services such as the allocated seating feature that customers demanded (Venkatraman, 2014). Thus, they had to either modify the existing on-premises reservation system or extend it as they did using Cloud Computing infrastructure. The latter approach which they took, greatly reduced their risk exposure because, if the new features failed to yield the improvements in customer satisfaction that the airline was looking for, it would have been a simple matter for them to shut off the additional cloud service providing the reserve seating application. No additional sunk costs would have to be wasted on IT infrastructure hardware in the process. The ability to add or remove additional computing capacity in this manner is a hallmark of Cloud Computing.

#### **Focus on Innovation**

An important implication of adopting Cloud Computing, is that it allows organizations to focus their efforts on innovation. By outsourcing non-core competency areas to third party Software as a Service (SaaS) providers, companies can focus on what they do best. That is, generating value and creating better experiences for customers. In EasyJet's case, there were two examples where the company exploited Cloud Computing for such advantages. First, was when they adopted Proofpoint's email system to improve security. Second, was when they implemented Workday's Human Capital Management software into their HR practices. EasyJet is a low-cost airline company, and likely did not have access to specialized information security and human resource management talents. Adopting these Cloud Computing services provided them with constantly up-to-date software and industry best practices and allowed them to continue to focus their efforts on other core business functions.

Another key implication is the fact that Cloud Computing enables grater business agility, as companies are able to develop and deploy solutions with much shorter lead times. As seen in EasyJet's case, they were able to introduce services such as the new flexible fare model for business travelers which allowed unlimited changes to ticket details within a four-week window. Such transformations would have typically involved complete overhauls of the underlying system codes and supporting infrastructure. However, EasyJet managed to complete the service whilst concurrently working on their mobile application. Furthermore, the Scalability of Resources brought forth by their adoption of Microsoft's Azure Cloud platform, enabled the team to embark on agile-based development practices as they had on-demand access to limitless computing resources and were hence able to build and test innovative prototypes freely without worrying about incurring significant costs to the organization.

## 4.3 Recommendations

The adoption of Cloud Computing into an organization's IT Outsourcing strategy, can bring about various benefits including Flexibility, Efficiency, and Cost Effectiveness. Startups and newer companies are encouraged to consider the possibilities of focusing their core IT Outsourcing strategy around Cloud Computing services to maximize on these potential benefits. However, existing companies and larger organizations may not have such luxuries, as they are saddled with the investments made in legacy systems and infrastructure. For these companies, they could perhaps adopt a similar "hybrid" approach such as the one used by EasyJet. That is, to keep existing legacy systems that still operate well, but move the development of new features and functionalities into the cloud and integrate back with the legacy infrastructure where necessary. This approach greatly reduces risks because, it is likely that the legacy systems already serve the basic needs of core business functions, and it would make little sense to dismantle them. Rather, adding an additional service layer on top to improve user experience would be more prudent. The company can then incrementally shift its focus and migrate to a cloud-first development approach, just as EasyJet eventually did.

# 5. Conclusion

Today's hypercompetitive environment requires companies to continually innovate and adapt their processes and business models to thrive. Such business landscapes force organizations to rethink and reimagine conventional IT Outsourcing strategies that have revolved primarily around cost savings. Increasingly, many companies are looking to add Cloud Computing services into their repertoire of tools to engender greater business agility. However, while much attention has been paid to the areas of IT Outsourcing strategy, and the generic benefits of Cloud Computing are well documented, there appears to be insufficient discourse on how to exploit Cloud Computing to advance a company's IT Outsourcing strategy. As more and more companies are looking to move towards cloud-first IT Outsourcing strategies, there exists an urgent need to further our understanding of the strategic adoption of Cloud Computing.

In this research, the key strategic drivers behind IT Outsourcing, as well as the potential benefits of Cloud Computing have been analyzed. Through an amalgamation of the two knowledge areas, a theoretical framework was derived for the understanding of the strategic adoption of Cloud Computing. Through analysis of EasyJet's case, the practical implications of adopting Cloud Computing were examined. In practice, Cloud Computing was found to enable firms to have better Scalability of Resources, minimizing risks and allowing them to cope with fluctuating demand. It was also found to bring about a greater Focus on Innovation by reducing friction and shortening development lead times of solutions.

However, despite the rising popularity of Cloud Computing solutions, it is understandable that some companies are still hesitant to consider such services. Organizations with legacy systems often find it challenging to migrate such mission critical setups into the cloud. This research recommends adopting a "hybrid" approach similar to that illustrated in the EasyJet case, to mitigate risks and maximize existing investments. Given the restricted scope of this research, acknowledgement must be made of the limitations of this discussion. Future research may wish to expand on the groundwork laid by this research to examine the implications of Cloud Computing or relationship management. A more holistic discussion of the adoption of Cloud Computing services would likely yield useful insights that future scholars and organizations can utilize to further their endeavors.

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