



Disruptive technologies and the legal profession

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Abstract

This article attempts to analyse the impact of disruptive technologies in the legal profession. The future of the legal world is inherently influenced by technology, automation and innovation as we further advance from a print-based media society towards a technology-based Internet society. Legal technology such as expert based systems have resulted in competition among legal-market stakeholders. The purpose of this paper is to evaluate the development of disruptive technologies and its influence on the legal industry in comparison to traditional legal firms. Though often castigated for its general reluctance to adapt and embrace technology, the legal industry is not immutable. Disruptive technologies are globally impacting the legal industry and will collectively transform the legal landscape. The avalanche and influence of disruptive technologies are evidently long term and the legal industry is called to enthusiastically embrace this drive of transformation. The recent COVID-19 pandemic exemplifies the accessibility and convenience afforded by disruptive technologies which has been disregarded in the past by the legal profession. The primary focus of this article is to analyze emergent disruptive innovation and the changing legal landscape.

Keywords: automation, disruptive technologies, innovation, legal technology, transformation

1. Introduction

The legal service market is expected to grow exponentially in the following years and clients are demanding greater predictability and quality in terms of cost and time. The avalanche of technological innovations and opportunities heightens the demand for transformation (Waage, 2013) ^[27]. These technological innovations augment efficiency, accessibility and transparency in legal services rendered. Legal expert systems used for due diligence contract revision and bankruptcy management have proven to improve the quality of legal service. These innovative emerging technologies are seen as efficient tools in improving quality and efficiency. According to McGinnis & Pearce (2019) ^[13] machine technology are widely used for practice management, e-discoveries, predictive analytics and billing. The advent of such legal technology and software enables clients' greater access to dispute resolution, with greater reduction in cost and time (Lowell, 2016; Susskind, 2010) ^[11]. In general, such technologies essentially transform the traditional business models of legal firms, as these technologies offer greater accessibility to clients from the lower income group (Susskind, 2010). The shift in the paradigm results in greater affordability to those who have been previously marginalized by the high cost of legal services. Legal services are no longer specifically catered for the affluent (Susskind, 2010).

The legal profession is increasingly confronted by disruptive technologies. Disruptive technology is defined as technology which challenges the traditional methods of doing things, undermining existing products and even entire industries (Christensen, 1997). According to Cortez, (2014) ^[7] the idea of disruptive innovation was introduced by Bower and Christensen in 1995. Iconic examples include automobiles, personal computing and cellular phones. These technologies fundamentally transformed companies, industries and markets (Susskind, 2010). There is

compelling evidence from the past which demonstrates the powerful impact of these disruptive technologies, initially disregarded and displaced by companies such as Sears and Xerox. By doing so these companies significantly missed out on huge commercial opportunities. The oversight however created opportunities for more maneuverable entrepreneurial competitors to dominate the market industry and creating a niche business for themselves (Susskind, 2010).

1.1 Theoretical Background

Disruptive technology is differentiated from sustaining technologies which merely enhance or support traditional practices (Christensen, 1997). In relation to the legal market, Christensen's theory and analysis of failure of greatly established companies will eventually equally apply to all professional service firms and the legal practice (Susskind, 2010). Studies by Barton (2014) ^[2], Brivot (2014) ^[3] and Skjolacik & Breunig (2017) ^[19] offer insights on the emergence of legal technologies, business models, and the impact of digitalization on the legal industry. Susskind (2008) similarly theorizes that the legal profession and the industry as a whole are experiencing significant disruption, and that the current trend will result in a distinctly diverse legal system thus affecting the future of the legal market (Susskind, 2017). The advent of a variety of information technologies currently available may underpin the legal profession, this is demonstrated in the recent COVID-19 pandemic where courts round the world adopted technology as a platform to navigate and facilitate the implementation of justice.

According to Susskind, (2020) it is understood that prior Covid-19, the legal service arena did not work well with disruptive technologies, the pandemic has in fact served as a realization on the advantages of technology, as these innovative platforms have proven to be less costly and

relatively easy to use especially in times of crisis (Susskind, 2020). Disruptive technologies though may be low key currently, will continue to grow in sophistication and strength which will undoubtedly continue to disrupt the legal market (Susskind, 2008). The disregard and the dismissal of disruptive technologies is indicative of the foreseeable collapse of complacent legal firms (Susskind, 2020; Cohen, 2020). Generally, the trend has been for the legal industry to play the waiting game, reluctant to adopt until the adoption of the new systems are unavoidable (Susskind, 2008). However, it is imperative that the legal profession adopts a more progressive mindset towards embracing technological advancements in order to remain relevant and competitive in the industry (Susskind, 2010).

According to Christensen (1997):

“It is in disruptive innovations, where we know at least about the market, that there are such strong, first-mover advantages...Companies whose investment processes demand quantification of market sized and financial turns before they can enter a market get paralyzed or make serious mistakes when faced with disruptive technologies. They demand the market data when none exist and make judgments based upon financial projections when neither revenues nor costs can, in fact be known. Using planning technologies in the very different context of disruptive ones is an exercise in flapping wings.”

1.2 Rationale

This article affords insight on the advent and application of disruptive technologies in the legal industry. The research question in this article firstly seeks to analyze the impact of disruptive technologies in the legal profession and secondly how these innovative technologies have disrupted the legal industry especially in reference to COVID-19 pandemic. It is imperative to understand how these technologies impact the legal industry in order to propose effective strategies which may be implemented to address challenges that may arise as a result of implementation. Disruptive technologies which is essentially distinguished from sustaining technologies do not merely automate legal tasks but also challenge conventional legal methods of practice (Susskind, 2008). It has been argued that disruptive technologies will change the role of legal practitioners and the way they interact, creating a pathway for emerging skills and competences (Susskind, 2010). COVID-19 acts as an accelerator in addressing the importance that the legal profession is in need of a complete overhaul. In these unprecedented times, the legal profession equally faces unprecedented challenges. This article attempts to afford some insight on these challenges and the strategies to affectively address them.

1.3 Significance

This article provides analysis on the impact of disruptive technologies in the legal industry with reference to the current COVID-19 pandemic. It attempts to afford some understanding to legal practitioners on the effect of disruptive technologies in legal practice and how these systems may be utilized to ensure greater efficiency and quality in legal services.

2. Literature Review

2.1 Legal Firms and Trend

Legal firms managed conservatively are usually reluctant to invest in disruptive technologies, while innovative and entrepreneurial firms are usually more inclined to adopt alternative business structures. Interestingly, Susskind (2010) said that the heart of disruptive technologies is not inherently technology itself but rather the managers who deploy the technology or the underlying business models of the legal firms which essentially brings about disruption. The author believes that for any type of technology to result in disruption, there must essentially be a human agent who navigates the disruptive systems in place and thus the catalyst that brings about change and disruption (Susskind, 2010). There are a variety of emerging technologies that will challenge the current conventional ways of working and the legal industry should strive to embrace and understand the impactful potential of these technologies. Technology is inherently a pivotal part of legal practitioners today and is not a parallel universe. Disruptive technologies will serve as a bolster to law firms, increasingly attracting attention among clients who are demanding more for less (Susskind, 2010). The author rightfully asserts that the advent of emerging disruptive technologies will alter current market practices (Susskind, 2010).

The objective of disruptive technologies is to ensure greater efficiency essentially displacing established competitors in the process. Fundamentally disruptive innovation alters the functionality of an existing industry (Christensen, 1997). The tenets of disruptive innovation are to continuously challenge existing practices and the dynamics of buyer and seller relationship. It is imperative to note that as Christensen (1997) rightfully asserts that often large organizations displace the importance in technological advancements which results in competitors gaining greater advantage in the market.

2.2 Types of Disruptive Legal Technologies

Disruptive technologies fundamentally challenge or overhaul the way the sector or industry operates. In the legal arena, Susskind (2008) identified the following as some examples of legal disruptive technologies:

a. Automated Document Assembly

These are systems which generate documents for example a contractual lease or tenancy agreement. The prospective user would have to answer a series of relevant questions and once completed a customized draft will be generated. Initially these systems were primarily used to generate wills (Susskind, 2010). These documents generated by the systems may not be to the excellent level of an experienced lawyer but would be relatively more refined than what an average layperson would be able to do. These systems work on the basis of customized templates which would have been previously programmed. Based on the input of the user, the system will automatically generate a document that is based on what a standard result should be (Susskind, 2008).

Such systems demonstrate that part of legal work in this case, drafting is capable of automation. Clients are more

acceptable as such disruptive technologies offer greater predictability and accessibility. Automated Document Assembly systems are categorized as disruptive because it tremendously reduces the time lawyers spend on drafting documents from scratch (Susskind, 2008). The use of such systems streamlines and creates efficiency in the production and generation of documents (Susskind, 2010).

These systems are also less costly than in the past as they are now packaged and made available across the Internet (Susskind, 2010). The disposal of such expert systems is no longer solely available to the largest of firms who have the capacity to make a huge initial investment. The line of argument on affordability is less compelling today (Susskind, 2010). These systems are evidence on how legal services can be made readily available online creating greater accessibility to clients who were initially marginalized due to insufficient funds in hiring a lawyer. They act as an efficient tool for clients to have greater access to justice. In the United Kingdom, Linklaters led the way as the first law firm to offer online drafting document service for clients (Susskind, 2008). This direction was subsequently followed by Eversheds and innovative law firm in United Kingdom, the document automation system in this firm automated the process of drafting documents for employment (Susskind, 2010). It is pivotal to note that the Susskind makes the very valid point in addressing how document automation may soon replace lawyers in this area of legal practice as it offers greater speed and reduction in costs.

b. Relentless Connectivity

“Relentless connectivity” is a term or a phenomenon employed to describe the constant engagement of professionals with their clients (Susskind, 2010). The current technology-based Internet society makes it near impossible for legal practitioners to disengage with their clients (Susskind, 2008). The result is evidently a highly responsive service to clients but with the unfortunate pressure placed on professionals. Disruptive technologies radically alter existing practices of nine to five working hours. Although the benefits of convenience and speed is widely acknowledged, the agitation and drawback are equally noted and accounted. These technologies affect response times and place unprecedented pressure and expectations on legal practitioners to be constantly receptive to their clients (Susskind, 2010).

Instant messaging and social networking add a further dimension of connectivity as users are able to clearly see if their acquaintances and contacts are online. With instant messaging, the online presence is harder to avoid. There is as cliché as it sounds ‘no place to hide’ (Susskind, 2010). The constant pressure of online presence and accessibility of contacts though taken more positively by clients might prove to be the averse for legal practitioners (Susskind, 2010). Legal practitioners have relented that clients often immediately initiate a video call knowing that their advisers are online, often pass their professional working hours. Susskind (2010) observes that it is crucial to ensure quality control in the world of relentless connectivity. The constant influx of messages and email should be moderated with adequate supervision as it may otherwise prove to be overwhelming.

The astute legal practitioners would prefer to switch off and disengage from network, but this might prove to be

detrimental to the legal business in the long run. Competitors who are more willingly to remain connected might be swift to answer queries from potential clients (Susskind, 2008). Relentless connectivity thus evidently challenges traditional methods of practice as it would acknowledge that responsive practitioners would have greater chance of survival in succeeding in the competitive legal industry. Seidman (2007) posited that “We will never become less connected.” It is indisputable that in the future connectivity will be more intrusive disposing a shadow of dystopian sense of apprehension (Susskind, 2017). The author makes a very significant point in depicting the future landscape of legal practice, as it accounts for a shift in business practices of legal firms.

c. The Electronic Legal Marketplace

It has become increasingly common for people to make purchases and sell online. Technology has transformed the buying and selling market (Susskind, 2008). The impact of Internet on trading in recent years has seen a shift in engaging services online, not limited to the trade of goods solely. It is common practice for consumers to engage the services of doctors, electrician, plumbers and many more online (Susskind, 2010). This creates the possibility of legal practitioners offering their services on an online portal enabling consumers to secure their services online (Susskind, 2010). An electronic marketplace, a virtual location where clients can visit to find and select their legal practitioners is a near reality, perhaps more sooner than anticipated.

Online platforms for legal services concede great potential for helping clients to secure services at competitive prices. Notably Susskind (2010) said that, genuine bespoke service which requires complex and highly customized communication and advise may not be readily accessible in an online portal or marketplace. A vibrant electronic marketplace offering legal services would essentially be disruptive as it challenges the more routine way legal practitioners are secured for their services by their clients today (Susskind, 2010). Arguably the electronic legal marketplace will therefore provide an avenue of source for multi and mass customization legal service at a lower cost (Susskind, 2010). The author significantly makes a valid point that the availability of such platforms enables greater accessibility and affordability to justice.

d. E- Learning

It is acknowledged that e-learning undeniably has a disruptive effect on the legal profession. The impact on the legal profession is both dramatic and challenging in many ways (Susskind, 2010). The techniques associated with e-learning refers to online web-based tools and multimedia techniques. E-learning enables the communication and transfer of information in more expressive systems (Susskind, 2008). It is often easier to watch a 10 minutes video and listen than to read a whole chapter in a book. Studies have shown that humans often prefer to listen to a kind voice explaining a situation rather than reading about it as a text. Intonation and emotion are said to have a profound effect on a person (Susskind, 2010).

The disruptive aspect of e-learning is that it will essentially challenge the way lawyers are educated and trained. Maharg (2007) said that the legal education is indeed ripe for a digital overhaul. The conventional law lecturer usually

begins with the audience being spoken at, often unchallenged. The conventional method of lecture may be replaced with online lecture as it offers greater convenience in terms of revisiting the lecture itself on the given topic. Though students are not required to congregate in a physical location, they are all virtually present and lessons are taking place as usual. The recent COVID-19 crisis resulted in many higher institutions to conduct their lesson as usual with the use of online platforms. Post COVID-19, law institutions should not continue to preserve the old ways of brick and mortar teaching. The Internet offers great flexibility for students to attend lectures with immense accessibility (Maharg, 2007).

Maharg (2007) posits that the world of technology has more to offer than online lectures and webcasts. Simulation based learning and training enable students to actually engage in online transactions, to experience running a legal firm and to engage in collaborative learning. In addition, according to Maharg (2007) these techniques were used in the Diploma in legal Practice program, where students were given the opportunity to play as solicitors in a virtually designed law firm. Students are thus engaged in the actual working experience of a solicitor and such student engagement and involvement affords greater possibility of students being more involved in their communities. The author rightfully asserts that such immersion ensures greater understanding in the actual working practices of a solicitor. This further enables fresh law graduates to blend in better to actual working practices once in employment.

Learning techniques which includes simulations and virtual reality will afford future lawyers the much-needed apprenticeship training which law students currently lack (Maharg 2007). E-learning is seen as a disruptor as it departs from traditional conventional legal training. In addition, it affords greater insight and expertise to students which extends beyond traditional distance learning.

e. Online Legal Guidance

Traditionally, legal advice is secured by means of consultation, this usually takes place face to face, the consultative service will be billed by the hour. Generally, lawyers will conduct meetings with clients in a physical location. The emergence of the Web, however, has made it possible for clients to gain access to increasingly advanced online facilities (Susskind, 2008). These services are termed as “virtual lawyers” legal advice system or online legal guidance systems (Susskind, 2010). These are web-based resources which removes the interface of human lawyers between clients and the law (Susskind, 2010).

These virtual systems provide expert legal advice and may generate documents or provide legal updates. Susskind (2008), contends that this disruptive technology may overlap with the others. Clients therefore are able to obtain legal guidance online which threatens the traditional legal profession who have enjoyed predominant monopoly over the years. These virtual systems are no longer solely within the reach of large firms with huge investments. Online legal guidance is indeed disruptive as it challenges conventional legal service consultation, which is primarily face to face in a physical location. According to Susskind (2010) it offers potential for providing substantive value in legal services rendered to clients.

In addition, it is essential to identify the impact of disruptive technologies and recommend remedial action (Susskind,

2010). The reason being such technologies will to a certain extent displace conventional lawyers especially in reference to menial repetitive work. The future of law is not exclusively limited to automation but also innovation. Disruptive technologies extends beyond simple automation of drafting documents and creates possibilities of fundamentally new methods of legal practice (Susskind, 2010). The author contends that these changes are unavoidable and irreversible and calls for greater urgency in understanding the impact of these systems.

Legal firms have the potential to increase efficiency and accessibility with the increase of automation with disruptive legal technologies (Susskind, 2010). These tools are able to provide greater speed for services rendered and also debulkify cumbersome processes. Legal practitioners should proactively adapt and innovate by incorporating disruptive legal technologies which holds both the promise of efficiency and lower cost. Susskind (2010) rightfully asserts that a conservative legal practitioner rigidly clinging to old ways of practice faces the risk of being irrelevant to more innovative lawyers.

2.3 Redefining Access to Justice

It has been a global issue that a large part of society is marginalized and unrepresented. Susskind (2008) referred to this in his book as the “latent legal market”, he posits it is a global issue and though policy makers, law reformers and commentators increasingly speak of access to justice’ there is less being done in unanimity. Disruptive innovations offer support in improving access to justice by providing access to speedier, cheaper and less combative mechanisms for resolving disputes (Susskind, 2010). In addition, disruptive legal technologies such as online legal guidance as posited by Susskind (2008) will fundamentally revolutionized the way in which legal services are rendered to clients. The author highlights that with the existence of online legal guidance, clients are not restricted to accessibility solely by virtue of traditional sources of legal recourse.

2.4 The Legal Business Model

Disruptive technologies will also equally influence the structure of legal firms, this is partly due to client’s expectation in demanding lower costs and requesting predictability in cost (Susskind, 2010). It has become increasingly difficult for law firms to justify billable hours (Susskind, 2008). The change in client’s expectations contributes to the change in business model of legal firms. Law firms are predominantly two tiered models in structure, with the senior partners at the top of the pyramid and the junior associates at the bottom of the structure (Susskind, 2010). However, with the rise of legal tech and disruptive technologies there is a possibility of replacing junior associates and paralegals with more efficient tools and systems. Susskind (2010) makes a significant point in acknowledging the changing structure of legal firms in the near future, with fewer junior legal associates and paralegals, most of the menial work will eventually be performed by computer systems.

2.5 Type of Legal Services

Disruptive technologies impact many areas of legal work, especially legal tasks which are mundane and repetitive. However, the impact may not affect legal work which is bespoke and sophisticated in nature (Susskind, 2010).

Disruptive technologies are currently used to augment legal service rather than replace the need for legal practitioners and it is unlikely that niche areas of legal work will be entirely replaced by disruptive legal tools (Susskind, 2010). Automation will predominantly take over legal tasks which focuses on repetitive and mundane work. The pyramid model will likely be challenged and replaced with a more linear model, with bespoke senior legal practitioners being assisted with expert legal tools and software (Brooks *et al.*, 2020). The economic restructure offers advantage in the form of freeing lawyers from burning the midnight oil on menial 'grunt work'. Lawyers are now able to focus their time on doing more value-added work which requires higher analytical and reasoning skills, something which they are naturally trained and should be doing (Susskind, 2019).

Law firms should not dismiss the impact of disruptive technologies but rather seek to understand how their work will be affected with legal tech, irrespective of the size of their organizations. Disruptive technologies though challenging also presents itself with new market opportunities which can be effectively utilized to capitalize existing market or to create a new market in the industry.

The disruptive trends as highlighted by Susskind (2010) indicate the losing monopoly of legal profession in the marketplace. Clients are increasingly demanding greater quality for services rendered. These emerging disruptive innovations evidently shift and shape the future legal marketplace. The predictions about the future of the legal profession conceded by Susskind (2010) seem to appear truer currently as the market trends appear to favour clients. It is important to note that disruptive innovations enable greater efficiency and access to justice for society, much in favour of clients who often want timely solution rather than lengthy procedures. The author remarked that the current backlog of cases around the world as a total collapse of the legal system and that the public is slowly losing their faith in the system (Susskind, 2019). The author also believes that the society especially the marginalized would be better served with the implementation of disruptive technologies. Susskind (2010) makes a very valid point in the importance of sustaining the public's confidence in the legal system.

However, a question that needs to be asked is the effect of cultural significance in the face of disruptive technologies. The less positive aspect of disruptive technologies as highlighted by Susskind (2010) does not clearly address the cultural factor which is often cited as barrier towards embracing innovation (Furlong, 2009). The shortcomings of legal firms and lawyers from developing countries are also not clearly acknowledged. There is thus a call for a clearer perspective on how these firms with their existing business models could benefit from these innovations in light of cultural connotations within an organization. It is also interesting to note that Susskind's (2010) theory also does not take into account the full perspective of leadership factor and how this may influence the approach towards embracing technological advancements.

2.6 The Rise of Alternative Legal Service Providers

The legal industry is also challenged by Alternative Legal Service Providers (ALSP) "a new breed of law firms" (Brooks *et al.*, 2020). The increasing pressure from these service providers are undeniable (Cohen, 2020). The entrance of ALSP in the market significantly reflect the current market trends in the legal industry, with clients

demanding "more for less" (Susskind, 2010). According to Preedy, (2018) the powerful competition from ALSP is expected to increase and this forces legal firms to rethink their business models. Cohen (2020) makes a significant point in addressing the changing landscape of legal practice with the rise of ALSP in the industry as it demonstrates society's growing acceptance in seeking remedy from unconventional providers.

2.7 Algorithms in Sentencing – Disruptive Technologies in Criminal Litigation

The Wisconsin Supreme Court in *State v. Loomis* (2016) upheld the use of algorithms in criminal sentencing decisions in criminal sentencing decisions. This innovative move is seen as greater possibility of implementing AI technology in the legal practice. Modria an online dispute resolution tool developed by eBay has been deployed to settle many thousands of disputes online using AI technology.

In February 2020, the Sabah courts in Malaysia, in a precedential move employed AI for data sentencing. The progressive move was a welcomed change in ensuring greater consistency in meeting out punishment. The former Chief Justice Tan Sri Datuk Seri Panglima David Wong Dak Wah said that although the algorithm is used for sentencing, the final decision as to the appropriate sentence to be handed out to the accused lies in the sole discretion of the presiding judge. His Lordship said that the recommendation for sentencing provided by the AI software essentially serves as a guideline for judges and the appropriateness of the recommendation is only taken into consideration after respective submissions are made.

In addition, in using AI systems for sentencing in criminal disputes, the sentence is also made known to the accused prior to the plea recording. The Sabah courts have taken progressive and advancement measures in technology investment, this is seen in the use of monitors, large screens, projectors, the viewing of evidenced produced in digital form. Presentational software is also permitted especially in the case of oral submission. These advancements are beneficial as it enables greater ease and effectiveness for lawyers to present their cases. Documents referred from the records of appeal are accessed via virtual files through monitors on the bench and submissions are accessible through an iPad which each individual judge uses. These cases illustrate the acceptability of disruptive technologies in criminal litigation. The progressive acceptance significantly indicates more usage of such technologies in the near future.

2.8 COVID-19 and the Disruption in Courts

The current global pandemic has also seen a rise in the use of disruptive technologies in the legal industry. In UK, to avoid any health risks to the participants, an entire trial for a Court of Protection case was conducted via Skype. Similarly, in Australia, the Supreme Court of New South Wales directed for all hearings to be conducted employing video conferencing services. In Singapore in a step towards ensuring safety and safe distancing practices, effective from March 30th, 2020, all hearings in chambers are to be conducted via video conferencing mode using Zoom or written submission for counsel (Supreme Court Circular, 2020).

In addition, in UK, the courts may allow "witnesses to give

evidence via video link or other means” in cases where the use of such electronic means would result in the efficient, fair and economic disposal of the litigation (Civil Procedure Rules r. 3.3: *Polanski v Conde Nast Publications Ltd*, 2005). In Singapore the Evidence Act 1950 permits evidence to be given through video conference with court permission. This exemption applies when witnesses are located outside the territory of Singapore, or it is in the interest of justice. In comparison the Judicature Act 1964 and the Evidence Act 1950 in Malaysia does not stipulate express provisions on the usage and admissibility of video conferencing or any other electronic means to enable remote disposal of cases. Albeit proposed amendments were advocated through the Remote Hearing Protocol: Practices and Procedures published in 29th April 2020.

In the following chapter, the challenges in the application of disruptive technologies are reviewed in order to further understand the impact to legal service and the possibilities available for the legal industry to explore these changes in order to remain relevant in disruptive times.

2.9 The Challenges in Embracing Disruptive Technologies

2.9.1 The Trust Factor

The approach to innovation requires a proactive change in mindset. Susskind (2010) rightfully argues that legal firms should fully leverage on technological tools in order to enhance efficiency. However, the traditional mindset ‘of doing things the way it has been done proves to be working well’ prevents a full engagement towards innovative practices (Susskind, 2010). The commercial pressure towards change is prevalent but the legal industry is slow to adapt and innovate (Susskind, 2019). The reactivity towards change is further heightened if traditional thinking senior partners in an organization are comfortable with the management practices and possess a cynicism towards technology (Susskind, 2019). The author rightfully asserted that leadership is an imperative factor in facilitating acceptance towards disruptive innovation.

According to Brooks *et al.*, (2020), lawyers are generally autonomous individuals, who are not inclined to be managed, skeptical in nature and perceive change as a personal attack. The innate conservatism of the profession remains the biggest challenge towards embracing innovation (Susskind, 2010). Brooks *et al.*, (2020) rightfully argues that the traditionalist nature of the legal profession is often cited as the main barrier in embracing technological advancements. Disruptive technologies afford a greater advantage on capitalization of the legal market but with the disengagement and reluctance of the profession as a whole, the theoretical promise of disruptive technologies is indeed underutilized (Susskind, 2010).

2.9.2 The Conundrum

The use of technological advancements such as online courts and virtual dispute resolution has often raised the prevailing sentiment that the practice of such alternatives may result in procedural impropriety or deprive parties of equal access to justice. It is important to note that the deployment of technology should be adequately monitored with protocols to address challenges which may arise (Susskind, 2019). This is pivotal to ensure equal access to justice in accordance to the rule of law (Susskind, 2019). There is no current blueprint available to ensure that all

risks and threats are accounted for, however necessary procedural guidelines can be formulated to ensure the appropriate use of such technology. To vehemently refuse the acceptance of technology is viewed as ignorance which may prove to be detrimental to the legal profession. As the former Chief Justice Richard Malanjum in (2019) said “The legal profession must embrace technology, or it will be dropped”. The vision is to ensure greater efficiency and accessibility and to not be left behind. Susskind (2020) correctly asserts that the future is prevalently here, and the legal profession is collectively urged to be proactive.

3. Methodology

This research adopts a qualitative approach and is purely a legal research. It is predominantly library and internet based. It has analyzed the current legal industry and a doctrinal research approach is adopted (Yaqin, 2007). Secondary sources such as textbooks, journal articles, seminar papers and reputable websites have also been referred to for this research. The methodology approach adopted is suggested to be the most appropriate approach as the doctrinal method is essentially classified as problem structured including stages which involve contextual reading, locating primary materials, identifying the current legal issues, gathering relevant facts, scrutinizing the gap within the law and analyzing all the subject matter relevant in context. The primary objective is to advance new knowledge and analyze the concepts, and proposed reformatory measures (Hutchinson & Duncan, 2012). This paper emphasizes on the implementation of emerging disruptive legal technologies or technology based legal services and how it unsettles the legal profession. It also identifies the potential strategies which may be employed to effectively cope with disruptive technologies.

4. Discussion

The legal profession has long showed resistance towards disruptive market forces for varied reasons. According to Wilkins (2019) this is predominantly due to the profession’s conservative and traditional nature, as it is the only field where something has to be proven to be said before, resting on the principle of *stare decisis*. In addition, rigid rules governing the profession further heavily regulates the businesses where traditional norms are favoured and new trends are generally expelled. However, in recent years, the legal market trends are changing in light of The Global Age of More for Less (2014) towards a more client centric industry. Countries such as United Kingdom, Australia and Canada have seen the advent of regulatory reform. Globally countries are experiencing greater liberalization in legal markets (The Practice, 2015).

According to Christensen’s (1997) theory of disruption, technology is the primary enabler in disrupting existing functionality of businesses. Though many would contend that disruptive forces do not work in the same in the legal industry, this may prove otherwise in light of the recent COVID-19 pandemic. With courts around the world having to close its doors, the legal profession was no longer immune, and technology was seen as the only means or enabler to navigate justice in light of current circumstances (Susskind, 2020). In essence law is an information-intensive industry and with the increasing processing powers in computers, it is inevitable that the practice of law will be predisposed to automation (The Practice, 2015).

4.1 The COVID-19 Pandemic

The 2019 novel coronavirus has attacked various aspects of society across the globe, the health, financial welfare, social order and political stability of nations has been adversely affected across the globe (Cohen, 2020). The bane of COVID-19 will pass but when and at what costs, and what would be the lasting impact on the legal industry is yet unknown. The coronavirus has surcharged the legal workforce to a virtual workforce. Social distancing, office and school closures and stay in place measures were implemented almost immediately (Cohen, 2020). The shift has led to the widespread use of underutilized technological tools in the legal profession. Judges and legal practitioners were called to urgently adapt and alter their status quo in order to ensure that justice is carried out.

The legal industry globally and in Malaysia has in the past tenaciously clung to traditional ways of doing things in the legal arena. COVID-19 has however served as an awakening, a realization to the legal industry of existing technological tools which offer greater convenience and efficiency in comparison to antiquated traditional methods (Susskind, 2020). Digitalization was once frowned upon by the legal industry, almost an illusionary concept. Susskind (2019) addresses judicial modernization by questioning whether courts are essentially a service or a place and posits that technology can serve to resolve the global access to justice crisis. Susskind (2019) advocates the efficiency of online judging where human judges decide cases via oral argument, reducing cost and time of an otherwise lengthy process. The author states that the current pandemic has displayed that legal disputes can be conducted online, and in the process saving cost and time. He nevertheless acknowledges that not all disputes are suitable for online judging in particular criminal case which require greater examination of witnesses on trial (Susskind, 2019). However online judging is acknowledged as an effective platform towards ensuring access to justice. The author correctly theorizes that the legal industry should embrace the challenges and adopt a learning for life mindset.

Due to the pandemic, many law professionals are now practicing remote working, virtual conferences and meetings and adapting to other legal technology. Online based platforms such as Zoom and Microsoft Teams are a norm, a scene radically different from pre COVID-19. Legal practitioners have also accustomed themselves towards using collaboration tools enabling them to keep working productively during the crisis. These new virtual collaborative tools will bring some new habits even once office closure has been lifted. Law firms are facing the reality of only being able to operate 10 to 15 percentage capacity in the foreseeable future (Brennan, 2020). Lawyers are coming to realize that remote working is possible and can be carried out successfully. An industry often castigated for its general reluctance and hesitation to adopt technology is now compelled to transform almost overnight (Susskind, 2020). While there is no formative guarantee that full-time return to office will be displaced, definite changes are evident in the way lawyers will continue to function and carry out their duties long after social distancing.

The key factor is technology, from basic tools such as video conferencing platforms such as Zoom and Microsoft Teams to advanced software which are able to analyze and read documents. Technology is now seen as more readily

acceptable to lawyers. It is important to acknowledge that the legal industry is not entirely new to the concept of technology. E-discovery software is presently extensively used in litigation and arbitration, an area of law which involves voluminous documents (Susskind, 2010). The sophistication of machine learning also enables corporate lawyers to fully utilize software in document review and due diligence. The speed and accuracy afforded by these algorithms have proven to be tremendously advantageous as lawyers are no longer required to spend long hours trawling through documents (Brennan, 2020).

4.2 The Malaysian Courts

The courts in Malaysia have taken positively towards leveraging technology at a rapid pace, for example judicial hearings through video conferencing or teleconferencing is an adopted practice during the crisis. The Remote Hearing Practice and Protocol Practice and Procedures (2020) was published by the Malaysian Bar Council as a guideline on the protocol to conduct remote hearings during the restriction movement control order. The paper reiterates that conducting hearings and trials remotely is surmountable both from a legal and technical standpoint. In addition, a landmark precedential move was seen by the Malaysian Court of Appeal in the live streaming proceedings in April 2020 during the pandemic.

Further, the implementation of the e-appellate system at the Court of Appeal and Federal Court of Malaysia which took into effect in August 2020 is also seen as a progressive move by the judiciary in embracing technology especially in the current state of global crisis. In line with the Honorable Chief Justice of Malaya Tan Sri Tengku Maimun Tuan Mat speech in the opening of the legal year 2020 (theedgemarkets.com, 2020), Her Lordship said that the judiciary should always continue to evolve in order to effectively fulfill the needs of society for justice in accordance to the principles and values of the Federal Constitution. In Her Lordship's speech, it was observed that considerable resources are wasted as a result of utilizing outdated and archaic methods. Hence, a paperless mode is both beneficial to the environment and cost effective. Though it was acknowledged that change may not be a smooth transition, it is nevertheless imperative to adopt a new mindset and move forward towards embracing technological advancements.

4.3 The Cost Factor

The cost of implementing technology customarily requires a huge initial investment. However, law firms should instead view technology as a booster to stay competitive post COVID-19, which involves more than a mere update on a software. The current economic status which indicates a possible spiral into global recession further entails clients to demand cost efficient services (Susskind, 2020). Clients of today are generally more sophisticated and essentially demand more for less (Susskind, 2010). Disruptive technologies such as document automation, machine prediction and predictive analytics enable legal firms to productively reduce time spent on menial work. Small size firms are at an added advantage primarily because technology offers greater opportunities to either capitalize existing market or to create a new market altogether (Susskind, 2010). With fewer resources required to complete a task, smaller firms are now given the platform to

play at level's game with more established competitors. Disruptive technologies offers the possibility for small legal firms to diversify legal service, creating an avenue for niche bespoke services (Susskind, 2017).

4.4 Skills for Legal Professionals

It has been predicted by Deloitte that by the end of this decade, 40% of legal tasks will be automated. This is taken to mean that legal practitioners must now equip themselves with new skills ranging from business, analytics, technology and even finance. This is the avalanche of the legal industry geared towards a digital era (Susskind, 2020). The role of law schools should ideally change in parallel. As society moves further from a print-based society towards a technology-based Internet society, the legal industry will increasingly overlap with other disciplines such as engineering, science and analytics (Susskind, 2019). The legal industry is currently part of a diverse ecosystem. The shift will cause legal practitioners to be more client centric and driven, focused on upskilling and providing value for services (Cohen, 2020).

Lawyers should think of themselves more than just legal advisors, the 21st century market requires them to be flexible, team based, technologically sophisticated commercially astute hybrid professional who are able to transcend all legal and professional boundaries (Susskind, 2010). Legal professionals should be equipped with a set of skills that will serve them well into the 21st Century. The focus should be not on training lawyers for 20th century but rather training on what clients need in the current digital era.

Potential Strategies to Cope with Disruptive Technologies in a Legal Organization

1. Revamp values and processes of organization

It is a difficult task to change the mindset and culture of an organization which has long been embedded within the organization (valtech.com. 2019) However, it is imperative that the legal profession understands the importance of embracing new innovative ways towards ensuring the sustainability of a legal organization.

2. Greater technical awareness

It is crucial that the legal profession understand the technical aspect of such technologies. It is no longer sufficient for lawyers to know purely the black letters of the law but to be equally well versed in all areas in order to remain relevant and competitive. The 21st century lawyer is one that is able to transcend all legal and professional boundaries (Susskind, 2010).

3. To be prepared for the market of tomorrow

It is vital that the legal industry embrace these emergent technologies and understand the future landscape of the legal market. As the adoption of detailed analysis and data quantification continues to grow, this is a strong indicator of how pivotal information is the success of any business in the future.

4. Effective regulation

Though effective regulation is imperative to ensure effective use of disruptive innovation, paradoxically regulations are frequently cited as both the driver and impediment for innovation (Roper *et al.*, 2008). However regulatory measures enable a positive implementation of disruptive

technologies as it safeguards against potential misuse such as data and privacy infringement.

Christensen (1997) rightfully argues that it is crucial for companies to be aware of current changes in the market and confront these technological changes. The failure to do so leads to organizations becoming obsolete. Further as Susskind (2010) strikingly asserts the legal industry is equally affected with the advent of emerging disruptive innovations and it is thus crucial that the profession overhaul their departments and working practices in order to remain relevant.

5. Conclusion

This paper attempts to shed some light of emerging disruptive technologies in the context of legal industry. The legal industry has often been criticized for its general reluctance in embracing technology and have often fallen behind in comparison to other fields such as medicine and finance (Haggerty, 2019). The invocation and application of disruptive technologies as discussed is vastly different from the traditional one-to-one consultative advisory service that has defined and characterized the legal profession to date. There is a probability that some of these disruptive technologies would displace conventional legal practitioners and the future elimination of paralegals (Susskind, 2010). These disruptive technologies would essentially and fundamentally create pressing challenges for the legal industry (Susskind, 2010).

The legal market at present is essentially client-centric and it is pertinent for legal firms to realize that clients today are generally more sophisticated and demand greater quality for services rendered (Remus & Levy, 2017). It is no longer an excuse for the legal profession to complain ad infinitum (Susskind, 2017). Disruptive technologies call for legal practitioners to be well adept in technological skills, one who is flexible, team based and commercially astute. Clients often act as a facilitator in pushing legal firms towards innovation primarily to enhance legal services and reduce excessive costs. Although clients' pressure may not necessarily emphasize the adoption disruptive technologies, there is definitely the existence of pressure on finding productive ways in doing repetitive mundane legal tasks speedier and at lower cost (Susskind, 2019).

In the past several months due to the pandemic, many judges and lawyers are now preferring the use of remote courts (Susskind, 2020). However, the leap from physical hearing to online hearing is still at a preliminary stage (Susskind, 2020). Though it is acknowledged that the application of technology is still at an infancy stage, the experimentation is seen as favorable in enabling courts around the globe to continue navigating and implementing legal services. Susskind (2020) rightfully said that it is pertinent to seize the opportunity and to accelerate the development in delivering justice more effectively.

The legal industry although shaped by custom and tradition should seek to reinvent itself with emerging disruptive technologies. Digitalization ensures greater efficacy in the workflow process and improves the management and organization of information (Susskind, 2019). External pressure is placed on law firms by contemporary trends such as disruptive technologies to reinvent and innovate. As Gibson said "The future has already arrived. It's just not evenly distributed yet." In this era of transformation and innovation, legal practitioners are urged to adapt and

embrace technology to ensure greater efficiency and to enhance the quality of legal services. As Susskind (2010) significantly said, "It is simply inconceivable that technology will alter all corners, or our economy and society and yet somehow legal work will be exempt from change." The profession is not unassailable.

In recent years, the exponential increase of technology has affected most professions and the legal industry is no exception. Socrates once said that the key to change is not to focus all your energy in fighting the old but rather in building the new. The time for change is evident and disruptive technologies will not only automate legal tasks but will equally challenge conventional methods of legal practice. The pandemic is glaring example of the existing vulnerable legal practice. The global crisis serves as a catalyst to push legal firms to adapt disruptive technologies and develop innovation solutions to effectively serve their clients (Susskind, 2020). This article highlights that technology is an effective medium to reduce cost and enable greater accessibility. Greater measures should however be taken by law firms to introduce software which are able to effectively augment the quality of legal service.

The application of disruptive technologies creates more time for attorneys to advise clients, work on negotiation and advocacy. To summarize it affords lawyers to break free from the process of reviewing and managing "boilerplate" within contracts. The integration of disruptive technologies ensures greater predictability and helps streamline time consuming process which often involves repetitive tasks. Legal professionals are thus urged to take advantage of disruptive technologies to ensure legal services are rendered in a more cost efficient and productive manner. As Susskind (2010) profoundly said "*Legal institutions and lawyers are at a crossroads, I claim, and change more radically in less than two decades than they have over the last two centuries. If you are a young lawyer, this revolution will happen on your watch.*"

This article attempts to signify the implications of disruptive technologies in the legal industry and the influencing factors associated. Potential strategies are recommended to enable the legal profession to effectively embrace technological advancements available in the current market. It is worth mentioning that it would impractical to expect a total change of mindset within a very short time frame, although adequate measures must be taken towards a more progressive move. The legal profession would also need to actively participate in the advancement of embracing these emergent technologies. The recommendations suggested in this article includes a modernization of several factors such as the business model, leadership and mindset of legal profession. In addition, this article provides an analysis of disruptive technologies in the legal industry, taking into consideration both international and domestic account of current state of affairs in light of the COVID-19 pandemic.

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