EFFICACY AND EFFICIENCY OF LAWS: SOME THOUGHTS ON THE CONCEPTUAL UNDERPINNINGS AND ASSESSING CYBERSECURITY LAWS IN THE GREATER BAY AREA ECONOMIC REGION OF SOUTHERN CHINA

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Abstract

The paper undertakes a conceptual analysis of the 'efficacy' and 'efficiency' dichotomy and argues that the latter should form an important component in the assessment of the former. Although an efficiency analysis of laws can stand its ground, the potential arguments that such a methodology can be apt only in certain vocations could be overcome if it is carried out as an integral part of a wider efficacy analysis of laws. To successfully carry out an assessment of any normative order, the clear identification of the reference standards or criteria upon which the effectiveness or the efficiency can be determined is a sine qua non. The paper delves on the potential reference standards, which could emanate from either legal or non-legal sources. Using the human rights normative order in Europe, the paper identifies the utility of regional legal norms in serving as the source of reference standards in determining the efficacy or efficiency of the domestic laws of the member states. The paper demonstrates how the European jurisprudence has sought to read the obligation of 'efficient' conduct of trails as part of the broader obligation to provide an 'effective' remedy. In the absence of binding legal references, how the relevant assessment of norms could be carried out is examined finally. Firstly, the issue is examined in the context of economic analysis of law and then the question is raised in the context of promoting the greater bay area regional cooperation in southern China. Specific challenges in achieving efficacy and efficiency in norms governing cybersecurity from the perspective of promoting the greater bay regional economic cooperation are identified. The paper concludes with the identification of some potential reference standards that could be of utility in assessing and improving the norms governing cybersecurity in the three involved jurisdictions.

Key Words: e*fficiency, efficacy, norms, assessment, cyber-security, Greater Bay Area*
JEL Classification: [K20; K33]

1. Introduction

'Efficiency' and 'fairness' of norms are intriguing and at the same time imperative questions to ensure the 'effectiveness' and legitimacy of any laws. Assessing the efficiency of norms is not an easy task as the inherent purpose and objective of laws are aimed at achieving a desirable set of goals or a value proposition and the question of how efficiently the intended goals or values are met is typically not a major concern. In contrast, how effectively the

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intended goals or values are realised is a more pertinent question in legal studies. On the other hand, the issue of fairness of norms pertains to the question of how the law balances different conflicting interests. Any law should inherently stand the test of fairness to achieve its wider acceptance, which in turn plays a crucial role in attaining effectiveness. In comparison, although the issue of efficiency of law does not weigh in so much on the question of acceptance of the laws, it could nevertheless serve as an essential element in gaining effectiveness.

The present paper primarily discusses the dichotomy and relation between the issues of efficiency and efficacy of norms with a specific reference to cybersecurity laws in the context of regional economic cooperation. The question of fairness of norms in balancing conflicting interests in a similar setting could be a subject matter of future studies. The paper addresses a crucial practical issue in designing and implementing any assessment project to determine the efficacy or efficiency of norms. The paper raises the fundamental question regarding the source of the reference standards upon which efficacy or the efficiency of norms could be determined. It examines the relevance of potential legal and non-legal sources, especially in the context of a regional cooperation setting. The distinction between legal and non-legal sources providing the reference standards for any assessment of efficiency or efficacy or fairness of norms is crucial, as the nature of the source would influence how to remedy a potential finding of lack of efficiency or efficacy or fairness of norms. If reference standards originate from a legally binding source like a treaty or a regional instrument or national constitution, a more effective challenge before an appropriate legal forum like a domestic or regional court is a palpable remedy, whereas a non-legal origin of the same would invariably raise a question as to how to remedy a finding of the lack of efficiency or efficacy or fairness of norms.

2. The Efficiency vs Efficacy Dichotomy

'Justice delayed is justice denied' goes an old adage, which arguably connotes the most widely acknowledged need for efficiency in rendering justice. However, the counter-intuitive argument of 'justice hurried is justice buried' demonstrates the potential risks in any resulting justice rendering efforts seeking to enhance efficiency. The term efficiency, equated with time as a factor, in the above example highlights a typical problem in efficiency analysis of any normative order. The fundamental questions include what is the criteria upon which efficiency should be measured in the assessment of legal standards? Who should set the criteria forming the basis of any efficiency analysis of a normative order? How to evaluate the desirability and legitimacy of the underlying criteria?

If there are no conscious efforts in determining the criteria underlying an efficiency analysis based on a broader consensus, it may result in conflicting perceptions of normative order. This, in turn, has the potential to cause discontent with relevant laws and trigger disobedience, which could ultimately result in the very failure of the laws. Even if it does not ring a death knell, other undesirable consequences, like the need for additional resources for stringent enforcement of the law among discontent subjects, the potential for increased disputes among relevant stakeholders, etc., could become the source of inefficiencies stifling the effectiveness of the underlying law. In contrast, if there is a consensus as to the criteria that should form the basis of efficiency analysis, then it would enhance the purpose of the whole exercise. The methodology of economic analysis of law is more apropos with the question of efficiency (O'Driscoll 1980), the utility of which is widely recognized in various frontiers of legal governance. However, whether the efficiency analysis of law is warranted beyond economic frontiers is an intriguing question that calls for wider debates and academic enquiries.

Before discussing the debates surrounding the efficiency analysis of normative order, it is essential to clarify the scope and purpose of the underlying enquiry. Any project seeking to undertake such a mandate needs clarity regarding what the term efficiency denotes. In this regard, it is important to first note the literal meaning of the term efficiency and then examine how the term is applied in certain specific fields like economics or business studies. The significance of conceptual clarity of the term efficiency, especially in legal analysis, need not be overemphasized. Scholars have argued that the efficiency paradigm in understanding the law could be hampered by the failure to specify the meaning of the term precisely with the potential to cause confusion. (Margolis 1987). In a similar vein, we are also alerted about the undesirable consequence of any faulty definition of the term, which in turn will undermine the very analysis of the efficiency of law to be faulty. The faulty analysis is said to have the risk of excluding fundamental features of a social situation, indispensable for an assessment of a legal setting. Therefore, any pursuit of efficiency analysis of a normative order should seek to clarify the precise meaning of efficiency and be wary of the pitfalls of a faulty definition of the term. Although the need for a precise definition of the term efficiency in the light of the specific scope and objectives of the underlying assessment project is indispensable, the understanding of the general challenges and experiences in defining the term in diverse contexts will provide some general caveats.

Firstly, it is important to be aware of the distinction between similarly sounding terms that are prone to be used interchangeably. The term efficiency is often confused with efficacy, which has a distinct meaning. Literally, efficacy is defined as the ability to produce the results that are wanted and is

equated with the synonym effectiveness (ed. Wehmeier 2000). Although the term efficacy is often used in certain fields like pharmaceutical sciences, it is not uncommon to employ the term to question the effectiveness of a law in addressing an underlying problem facing a legal order. In contrast, the term efficiency is defined as the ability to do well and thoroughly, with no waste of time, money, or energy. The term efficiency is widely used in various contexts and the underlying value upon which efficiency is determined could be different. For example, the opening reference of this paper pertaining to the rendering of justice primarily devolves around the time factor in determining efficiency. Therefore, it is crucial to understand the significance of the underlying criteria based on which efficiency could be measured.

The conceptual clarity of the term efficiency is paramount before the term is used to assess any process let alone the normative function. In comparison between the terms efficacy and efficiency, the former relates to the question of whether the desired result is fully realised, while the latter enquires how a desired result is achieved. Despite the difference, it is relevant to note that both terms beg the question as to what is the underlying reference standard or criteria based on which they can be defined. Effectiveness is a much broader term as it may be determined based on a combination of factors, while the term efficiency could be based on a narrower criterion. Moreover, it is foreseeable that efficiency in itself could be one of the factors that may be used to determine efficacy.

The comparison of the two terms not only demonstrate their distinctive meaning and characteristics but also indicate their utility in any assessment exercise of a normative order. In any enquiry focused on the question of efficiency of legal norms, it is important to note the relevance and significance of efficacy in legal analysis. Arguably, examining the efficacy of the law would be more pertinent and utilitarian in assessing a normative order than using an efficiency analysis. Such a conclusion is firstly supported by the key difference in the literal meaning of the two terms. It is equally conceivable that the question of whether the desired result of a law is fully realised would be more pertinent in assessing the success of a law than how efficiently such a result is achieved. Moreover, the efficiency question being primarily part of an economic analysis of law could also be counter-intuitive as the function of the law transcends beyond achieving economic efficiency. The diverse role of law in a society warrants an assessment that comprehends a wider set of criteria and social goals than confining it to more narrow perspectives. Besides, as alluded earlier, any efficacy assessment could encompass the efficiency question as one of the several criteria upon which the underlying legal norms would be scrutinized.

3. The Efficacy and Efficiency Obligations under Regional and International Instruments

The concepts of efficacy (effectiveness) and efficiency are also indoctrinated in various regional and international legal obligations. For example, the right to an effective remedy is recognized under the European legal order[1] as well as in other regional[2] and international human rights regimes[3]. The binding obligations of the member states to provide an effective remedy for violation of specific human rights guaranteed in the respective instruments have been subjected to various judicial scrutiny to determine the components that would constitute the effectiveness of the remedy. The determination of the effectiveness of the remedy in such cases could serve as a relevant example, although an efficacy assessment of norms should be more versatile and be capable of evaluating diverse laws and legal standards. In addition to the right to effective remedy recognized in human rights instruments, there are other human rights obligations that incorporate the effective element.

The obligations under the European Convention on Human Rights and Fundamental Freedoms (European Convention) to provide effective protection of human rights and to ensure the effective exercise of individual rights to submit applications to the European Court, as well as the right to effective protection against discrimination under the International Covenant on Civil and Political Rights (ICCPR), are some further examples of specific obligations warranting effectiveness of the underlying rights. Finally, it is also interesting to note that the European Convention, as well as the American Convention on Human Rights (American Convention), imposes an obligation on their member states to furnish explanation or information about how the domestic laws of the member states ensure the effective implementation or application of the provisions of the respective conventions. Such obligations not only demonstrates the need for individual member states to carry out an effectiveness assessment of their domestic laws but also the power of the respective regional bodies to scrutinize the submitted explanations or information to determine effectiveness. This is a good example of how the effectiveness assessment could be driven by external obligations of a jurisdiction in order to uphold the principle of a regional or international cooperation.

Similarly, the recognition of the concept of efficiency could be identified within specific obligations in the regional and international legal instruments. For example, the ICCPR mandates a trail of an arrested or detained person with a criminal charge within a reasonable time, whereby state parties are

[1] Art. 13, European Convention on Human Rights and Fundamental Freedoms. See also art. 47, Charter of Fundamental Rights of the European Union.
[2] Art. 25, para. 1, American Convention on Human Rights recognizing the right to effective recourse to judicial protection.
[3] Art. 2, para. 3(1), International Covenant on Civil and Political Rights.

obliged to initiate the relevant trail efficiently[4]. Reasonable time standard finds a place in the European Convention, which imposes the obligation of a trial within a reasonable period of a person arrested or detained under the suspicion of committing an offence or for prevention of the commission of any offence or to prevent the fleeing after the commission of an offence[5]. The European Convention also recognizes the reasonable time standard in its guarantee of the right to a fair trial and public hearing in both civil and criminal cases[6]. The American Convention, on the other hand, extends the reasonable time standard for the trail of any person detained[7] as well as to the right of a fair trial in both criminal and civil proceedings[8]. Moreover, the American Convention also mandates the member states to furnish within a reasonable period any relevant information requested by the Inter-American Commission on Human Rights concerning petitions or communications on violations of the protected rights. The above-discussed obligations in different regional and international instruments imposing a reasonable time or reasonable period standards are relevant examples that are pertinent to the question of efficiency.

4. Efficiency as a subset of Efficacy

Finally, how the concept of efficacy could also comprehend the question of efficiency can be demonstrated with reference to the human rights jurisprudence. A conspicuous example in this regard is the interpretation of the scope of the right to an effective remedy under the European Convention. When the European Court of Human Rights in the case of *Kudla v Poland*[9] was called upon to determine the scope of the right of an effective remedy, it had the opportunity to determine the intriguing question of whether the effectiveness of the remedy would also encompass the question of efficiency (reasonable time standard) in conducting a trial. The substantial question raised in this regard before the Court was whether a finding of a violation of the art. 6 para. 1 of the European Convention (mandating the conduct of a trail efficiently within a reasonable period) could also give rise to a complaint alleging the violation of art. 13 of the Convention (warranting the state to provide an effective remedy).

The courts and other forums facing this question on previous occasions had dismissed the arguments that an additional question of violation of art. 13 can still be raised by a complainant on the ground that there was a violation of

[4] *Idem*, Art. 9.
[5] Art. 5, para. 3, European Convention on Human Rights and Fundamental Freedoms.
[6] *Idem*, Art. 6, para. 1.
[7] Art. 7, para. 5, American Convention on Human Rights.
[8] *Idem*, art. 8, para. 1.
[9] (Application no. 30210/96), European Court of Human Rights, 26 October 2000, viewed 11 May 2020 from http://hudoc.echr.coe.int/eng-press?i=001-58920.

art. 6 para. 1 (found in the same case). Such dismissals were mainly based on the reasoning that the provisions of art. 6, para. 1 should be construed as *lex specialis* in its relation to art. 13. Hence additional arguments claiming violation of art. 13 (*lex generalis*) should not be allowed when the claim of violation of the provisions of art. 6, para. 1 has been entertained in the same case. In other words, for the purpose of our ongoing discussion, the European courts were not willing to read the efficiency question as part of the larger effectiveness standard, by characterizing the obligation to conduct trails in a reasonable time (efficiency) as *lex specialis*.

Although the *lex specialis* reasoning excluded the consideration of the question of whether the failure of a state to conduct the trial within a reasonable time also violated art. 13 effective remedy obligation, claimants could seek to establish the violation of art 13 on various other grounds. The *lex specialis* reasoning also confirms that the broader nature of the effective remedy standard in art 13 consisting of various components that could constitute effectiveness. In contrast to the precedent set by previous cases, the court in *Kudla v Poland* for the first time found it necessary to redefine the relation between art. 6, para. 1, and art. 13. The court held that there was nothing in the provisions of art. 13 or in its drafting history that would limit the scope of its application concerning any aspects of the right enshrined in art. 6, para. 1. The Court, therefore, held that the guarantee in art. 13 should be interpreted to include the ability to seek an effective remedy for a failure to conduct a trial within a reasonable period as provided by art. 6, para. 1. In other words, the Court categorically acknowledged that the effectiveness of a remedy should be interpreted broadly to include the possibility of challenging any inefficiency in conducting a trial.

In the light of the conclusion of the Court that efficiency achieved in conducting a trial within a reasonable time is part of the effective remedy guarantee, it is evident that the components constituting effectiveness are not constant and could evolve. Therefore, the determinants of effectiveness could change in different contexts. For example, even between different European instruments guaranteeing an effective remedy, there are perceivable differences. While the European Convention provides the guarantee for an effective remedy that could be before any national authority, the Charter of Fundamental Rights of the European Union (EU Charter) warrants such a remedy specifically before a tribunal. Moreover, individual member states of the EU tend to fulfill their obligation to provide an effective remedy within their domestic context differently. (Piątek 2019).

The obligation to enforce the right to effective remedy at a national level need not be implemented through one single mechanism providing the remedy and the member states could satisfy this obligation through a combination of remedial measures. Any assessment to examine whether an effective remedy is

provided by a member state should take stock of all the remedial measures cumulatively to determine whether the effectiveness standard has been met. After the decision in the *Kudla v Poland* case, any measures that are put in place by the member states to provide a remedy for grievances arising out of inefficient conduct of trails would also be taken into account in the process of determining the effectiveness standard. Therefore, the availability of remedy to enforce the efficiency standard in conducting trails is also part of the effectiveness test assessing remedial standards in the EU.

Finally, the ongoing discussion about the effectiveness and efficiency in the context of human rights jurisprudence can also serve as an example of how the effectiveness and efficiency assessment of national legal standards could be driven by the regional obligations or policy. From the examples discussed, it is clearly evident that any challenge that there is no effective national remedy in general or there is no effective national remedy against the inefficient conduct of a trial, in particular, would stand the scrutiny in the regional court using regional norms. This regional norm-driven scrutiny of national standards could serve as an inspiration for developing informal assessment models of national effectiveness or efficiency standards in any field of legal governance including emerging technology laws addressing cybersecurity. Although regional normative order in parallel to that of the EU may not exist in other regional settings, effectiveness or efficiency assessment of national legal standards of the members of a regional cooperation could use regional policy instruments or even the findings of relevant scientific academic studies could be used as a frame of reference for the assessment. This is particularly relevant in the field of cybersecurity law, where regional or international legal instruments establishing binding effectiveness or efficiency standards may not be easy to come. More discussion on how the emerging domestic legal standards on cybersecurity in the three jurisdictions involved in the greater bay area could be assessed in these lines will be examined later in this paper.

5. Efficiency and Economic Analysis of Law

The issue of efficiency is primarily a factor of investigation in the economic enquiry of law. It has been part of legal doctrines and by virtue of which it is argued that laws should be capable of accommodating the acts of the subjects that enhance the aggregate economic welfare of the parties involved in a legal relation than being insensitive or repugnant of such acts. As an extension of this argument, the judges or arbitrators, especially in the common law legal tradition, are called upon to use the cannons of interpretations to interpret laws in the light of economic grounds or efficiency (Priest 1977). In consequence of such doctrines, economic or efficiency grounds have found recognition in legislation and or in judicial/arbitral interpretations. (Friedman 2000). The classic example in this regard is in the

field of law of contracts, where doctrinal discourses like the 'doctrine of frustration' and 'doctrine of efficient breach' include the basis of economic or efficiency arguments. Due to the influence of such doctrines, non-performance of obligations by a party to a contract could be condoned at different degrees ranging from total discharge from the underlying obligations (instead of sanctioning it as a breach) to granting of a certain type of damages for the breach (instead of granting specific performance or more onerous types of damages that could defeat the underlying economic or efficiency justification for the breach).

While certain doctrines in contract law like the 'doctrine of impossibility' is based on the objective standard (of physical impossibility to perform the contract due to the destruction of the subject matter of the contract or supervening illegality) to discharge the parties from the contractual obligations, others are reliant on the subjective interpretation of the judges or arbitrators depending on the facts of the underlying case. For example, the 'doctrine of impracticability' (economic or commercial) or doctrine of frustration caused by delay or doctrine of efficient breach depends on the subjective interpretation and consequently calls for different degrees of persuasive economic or efficiency arguments to attain a desirable outcome. Among the said doctrines, the doctrine of efficient breach is the most challenging one to justify. The doctrine of efficient breach, fundamentally based on the economic analysis of contractual obligations, seeks to justify a breach of obligation by the parties to a contract on the grounds that the breach provides a gain or avoids a loss than in the performance of an obligation in question.

On the other hand, the doctrine of impracticability is characterized by circumstances, where it is essential to establish that there was a supervening contingency or event, making the performance impracticable (requiring high standards of economic justification) (Hubbard 1982). Similarly, the doctrine of frustration based on the grounds of delay warrants the proof that the nature of the delay was such that it has the effect of fundamentally defeating the bargain (Stannard 1983). However, in contrast, the doctrine of efficient breach is not based on a situation that party seeking to justify the non-performance has no choice. It is a sheer case of the breaching party seeking to justify the non-performance on the grounds that the breach has averted a loss or provided a gain in aggregate. Although such an argument could be economically sound and efficient, sceptics have argued that contractual promises should not be simply seen from economic perspectives but on high moral grounds.

In any case, the success or failure strategy to use the doctrine of efficient breach in a contractual dispute depends on how much the judge or arbitrator resolving the dispute is willing to acknowledge the rationale of the underlying economic arguments in the doctrine. Although the party engaging the doctrine of efficient breach does not seek a total discharge as in the case of other

doctrines discussed earlier, the judge or arbitrator may not be amenable to the justification and go on to grant a type of remedy that could defeat the spirit of the economic rationale under the doctrine. For example, it is argued that only the grant of a compensatory damage (determined based on the loss of the party who suffered the breach) has room for accommodating the efficient breach rationale. Instead, if the judge or arbitrator grants the remedy of specific performance or other types of damages like the disgorgement damages (awarded on the basis of the benefit derived by the party from his breach) or punitive damages, it could defeat the purpose or motive of an efficient breach. (Bigoni et al. 2014).

The foregoing analysis, evidencing the scope for economic or efficiency analysis of laws in a formal legal setting, indicates two scenarios. Firstly, it is clear that certain doctrines based on economic or efficiency standards doctrine of impracticability or frustration by delay, etc have attained legislative recognition or judicial acceptance. This should provide a strong encouragement for the pursuit of economic or efficiency analysis of norms in other frontiers of law and seek recognition in a similar formal legal setting. Secondly, the scope for pure economic analysis under the doctrine of efficient breach and its potential to influence the desired outcome in the formal judicial or arbitral institution is even more intriguing as it provides the wonderful opportunity for the creative engagement of economic or efficiency analysis of various frontiers of law in the future.

6. One Country Three Systems, Greater Bay Area Aspirations and the Assessment of Effectiveness of Cybersecurity Laws

The Greater Bay Area (GBA) cooperation is a regional development plan undertaken by the Peoples Republic of China (PRC) involving its economically progressive southern province of Guangdong along with Hong Kong and Macau. The three jurisdictions form a very unique setting under international law in which the sovereignty is exercised by the PRC in all three jurisdictions, yet each of them belongs to a distinct system of governance. Hong Kong and Macau, previously under the British and Portuguese administration respectively are currently enjoying a privileged status as the special administrative regions (SARs), which is slated to continue for fifty years since they reverted to the PRC (in 1997 and 1999 respectively). The legal status of Hong Kong SAR is governed by a Joint Declaration signed between PRC and the United Kingdom (UK) and a Hong Kong Basic Law, which serves as the constitutional instrument of the region. Similarly, the legal status of Macau is governed by the Joint Declaration between PRC and Portugal as well as a separate Macau Basic Law providing the constitutional framework in Macau SAR.

By virtue of the autonomy, both SARs are granted various powers in establishing international legal relations except in the fields of defence and

political relations. For example, both the SARs are independent members of the WTO, distinct from the PRC membership. PRC has agreed to continue to apply the international treaties that were extended to Hong Kong and Macau SARs by their respective previous administrations. However, after the two SARs were reverted back to the PRC, the application of any new international treaties (to which PRC is a party) to the two SARs has to be decided by the PRC. A cursory comparison of the three jurisdictions reveals distinct characteristics in the legal, economic, and political systems followed in each of them. PRC follows a socialist legal system, whereas, Hong Kong adopts a common law legal system and Macau is influenced by the European civil law legal system. While the PRC has a socialist-market economy, a free-market economic model is followed in both Hong Kong and Macau. It is this very unique setting and the distinct characteristics of the three jurisdictions that make the emerging GBA regional cooperation an interesting case study in the context of the issues raised in this paper. The question of efficiency and efficacy of norms face some distinct challenges in the context of the GBA cooperation in general and emerging norms governing cybersecurity in particular. The remainder of this paper identifies some of the key issues in this regard albeit with a caveat that it is for the limited purpose of highlighting its significance for future research than to address them in detail here.

The GBA cooperation, established in July 2017, through a Framework Agreement (FA) has established seven key areas of cooperation, including 'building a global technology and innovation hub'; 'building a modern system of industries through coordinated development'; 'promoting infrastructure connectivity', 'enhancing the level of market integration'. Most of these key areas of cooperation warrants a healthy and harmonized set of legal standards governing cyberspace activities in the three jurisdictions. Although the three jurisdictions have initiated various legal measures governing cyberspace, there is no concerted effort to harmonize and streamline the related legal developments in the light of the promotion of the GBA cooperation. Among, different laws governing cyberspace activities, some of the recently emerging legal developments in the three jurisdictions aimed at governing cybersecurity is an interesting set of norms that calls for an assessment in lines with the discussion of this paper.

First of all, a quick overview of the pertinent laws governing cybersecurity in the three regions reveals some conspicuous limitations. Among the three, only PRC and Macau have introduced exclusive legislation governing cybersecurity. Hong Kong must still rely on the general provisions of its criminal law and the specific provision of its personal data protection (privacy) law. Secondly, the relevant laws of PRC and Hong Kong governing cybersecurity predate to the GBA FD and therefore would not have had the benefit of considering the need for GBA related harmonized legal standards.

Although Macau cybersecurity law has been the most recent of all, introduced in 2019, there is no specific evidence that it was developed with a conscious effort of GBA related needs. In any case, the need to harmonize the legal standards governing cyberspace should be a concerted action involving the three jurisdictions and any conscious efforts only on the part of Macau would not have gone far in achieving the required harmony. Secondly, a closer scrutiny of some specific legal standards governing cyberspace in these jurisdictions (for example the PRC) reveals formidable challenges facing business entities and others seeking to invest and operate in the GBA (Parasol 2018). Such challenges have the potential to cause inefficiencies that need to be effectively identified and addressed for the GBA aspirations to be successful, especially the plan to transform it as a global technology and innovation hub.

Due to the limitation of space, only a brief comparison of certain specific disparity in legal standards between the PRC and Hong Kong legal standards can alone be highlighted here to evidence the concern. Firstly, the PRC cybersecurity law being a *lex specialis* creates a more comprehensive set of cyber security-specific regulations exclusively governing operators in cyberspace. But Hong Kong data protection law is neither specific to cybersecurity nor the operators therein. Due to this major distinction, the cyberspace operators facing the PRC law would face more onus in compliance than similar operators in Hong Kong. For example, the cybersecurity law of PRC mandates network operators to notify individuals and seek their consent in the collection of personal data and use the data in consonance with the consent and relevant laws. However, the general personal data protection law of Hong Kong does not require such consent for collection or use. This distinction would obviously result in a different cost of compliance for the cyberspace operators under the two regimes.

A closer introspection of the norms governing the cyberspace operators in the two jurisdictions reveals some substantial differences, which has the potential to raise some serious efficiency concerns. The concern on the disparity between legal standards is further exacerbated by policy divisions in Hong Kong, resulting in the opposition to the introduction of certain security-related laws in Hong Kong. Such divisions may prove to be a stumbling block in seeking to harmonize legal standards in cybersecurity among the three GBA jurisdiction. However, a pragmatic approach to resolve any deadlock would be to categorically demarcate political concerns and sensitivities from the potential economic and efficiency-related challenges caused by the disparity between the cybersecurity laws of the three regions. This, in turn, warrants a systematic assessment of the existing norms that would have implications for any entities aspiring to operate in cyberspace related activities in the GBA.

Concluding Remarks

The inquiry into the challenges facing the regional economic cooperation in the GBA indicates the need for further systematic assessment of efficiency or efficacy of the related norms in the region. However, designing such an assessment will no doubt face many conceptual issues and the question of pertinence of relevant reference standards that could be used to determine the efficiency or efficacy of the cybersecurity specify norms. In the circumstances of the limitations of regional and international legal sources, as well as in the light of greater diversity in the nature of the legal, economic and political systems followed in the three regions, designing an efficiency or efficacy assessment of the cybersecurity norms should first be carried out at the domestic level in each of the participating jurisdictions. The result of such studies should then be used to comparatively assess and harmonize the norms at the regional level.

To design such studies at a regional level, there is no doubt that the key issues raised earlier in this paper need to be tackled in the specific context of the GBA. For example, GBA being a looser regional cooperation in comparison with the other formal and institutionalized cooperation like the EU, the availability of a common standard of reference to determine efficiency or efficacy of laws would be a key challenge. In such circumstances, undertaking a much broader efficacy assessment in the light of regional aspirations would be more feasible than seeking to undertake a specific efficiency assessment of related norms. For such efficacy assessment, the FA establishing the GBA could be utilized as a general frame of reference, especially the preamble values, key principles of cooperation as well as its objectives and goals. However, for cybersecurity specific normative efficacy to be assessed, reference standards beyond the FA would be required. In this regard, the potential way forward would be to look for related international normative developments, which the PRC could consider acceding and then extending to the two SARs. Such an approach has been adopted by the PRC in the past, especially in the field of WIPO Internet treaties (the application the two related treaties have been extended to Hong Kong and Macau SARs in 2008 and 2013 respectively), the experience of which will provide useful insights in assessing and seeking the desirable legal harmony to enhance the overall efficacy of the related cybersecurity norms. The conceptual caveats and the clarity distinguishing efficiency and efficacy of legal norms raised in this paper will facilitate any related pursuits.

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