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## The Role of UNCITRAL Texts in Promoting a Harmonized Legal Framework for Cross-Border Mobile Payments

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THE ROLE OF UNCITRAL TEXTS IN PROMOTING A  
HARMONIZED LEGAL FRAMEWORK FOR CROSS-BORDER  
MOBILE PAYMENTS

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ABSTRACT

*The establishment of a regulatory environment is a condition necessary, but not sufficient, for setting up a legal environment supportive of mobile payment and banking services. Equally important is the creation of an enabling legislative environment on the legal status of electronic communications and on other relevant rules such as those on payments. In fact, existing legal frameworks, be they of statutory or contractual origin, are often insufficient to address all legal issues, especially in developing countries. Therefore, guidance in the form of international standards, such as those prepared by the United Nations Commission on International Trade Law (UNCITRAL), is desirable. In particular, existing UNCITRAL texts on payments could be reviewed in order to align them with UNCITRAL texts on electronic commerce as well as current practices in the use of electronic communications. This work should take into consideration the needs of small and medium-sized*

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*enterprises, which are likely to particularly benefit from broader access to mobile services.*

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#### INTRODUCTION

Electronic communications have significantly and irreversibly changed the manner of conducting business. One of the early fields where electronic communications have found application is payments; indeed, large inter-bank payment systems have been at the forefront of the digital revolution. Access to those systems has been gradually extended to major clients, and eventually to the public at large. Today, the use of electronic means is so pervasive that it is simply impossible to think of renouncing it. Payment services represent the core of electronic banking.

The increasing mobility of electronic devices has created new opportunities. Mobile payments as well as mobile banking services are available.<sup>1</sup> Mobile payments, however, have not received equal attention or interest in all countries.

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<sup>1</sup> For the purpose of this Article, the term “mobile payments” refers to payments where the payment order is sent and/or received using mobile devices, such as mobile telephones, and the term “mobile banking” refers to access to credit services via mobile devices. In general, however, the term “mobile banking” is often used to refer to all transactions with banks, and not necessarily only to those involving access to credit.

The possibility of having access to electronic services, including via mobile devices, depends on the information and communication technology (ICT) infrastructure. Mobile services need a network capable of supporting them in a reliable and secure manner. At the same time, in certain regions ICT infrastructures, including mobile networks, though not yet fully developed, are already more ubiquitous than the physical banking network. This explains the asymmetry in the offering of mobile payments. On the one hand, in some very ICT advanced countries, such as Japan and the Republic of Korea, mobile devices are commonly used for micropayments.<sup>2</sup> In those cases, the broad availability of mobile networks allows for frequent transactions of small value. On the other hand, in many developing countries, especially in Africa, the reach of mobile networks, though more limited than in the previous case, is sufficient to permit the exchange of payment orders with simple technologies. Given the dearth of physical banks and other payment systems in these countries, mobile payments have become a fundamental element of conducting business, and a promising vehicle to promote financial inclusion.<sup>3</sup>

The current status does not, of course, preclude future developments. In particular, if appealing services are developed or if mobile networks are further expanded, it is possible that the use of mobile devices for micropayments will also become prevalent in other countries. However, countries currently situated between the two groups mentioned above see mobile payments as a niche market, for instance, for remittances.<sup>4</sup>

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<sup>2</sup> A definition of micropayments is necessarily elusive as the notion of “very small payments” may vary with purchasing power. These are transactions relating, for example, to a single ride on a public transportation system. PayPal, a leader in electronic payments, defines micropayments as transactions of value below US\$12. *Micropayments*, PAYPAL, [https://www.paypalobjects.com/IntegrationCenter/ic\\_micropayments.html](https://www.paypalobjects.com/IntegrationCenter/ic_micropayments.html). This definition is used for the purpose of fee charges.

<sup>3</sup> In June 2011, 80 percent of global mobile payments transactions originated from East African countries. *M-Banking: 80 Percent of Global Transactions Made in East Africa*, MAKING FINANCE WORK FOR AFRICA, May 30, 2012, available at <http://www.mfw4a.org/news/news-details/7/m-banking-80-percent-of-global-transactions-made-in-east-africa.html>.

<sup>4</sup> For a brief description of the status of mobile payments in the United

Significant attention has already been given to the law applicable to mobile payments, especially given its possible contribution to financial inclusion. However, commentators tend to focus on the regulatory aspects of those payments: issues such as which entities may offer mobile payment services, and at what conditions. So-called enabling aspects—i.e., legislative provisions aimed at facilitating trade and, in this case, mobile payments—seem less discussed. Those provisions are found at the intersection of two separate fields of international trade law: the law of electronic transactions and the law of payment. The first set of rules deals with the technological aspects of mobile payments, while the second addresses issues arising from the transfer of money and, possibly, underlying transactions.

The United Nations Commission on International Trade Law (UNCITRAL, or the Commission) was established in 1966 by the United Nations General Assembly to further the progressive harmonization and unification of international trade law.<sup>5</sup> In doing so, the Commission has prepared texts that have been enacted to regulate not only international but also domestic trade. The work of UNCITRAL is particularly interesting for mobile payments because the Commission has prepared texts both in the field of electronic communications (of which mobile communications are a subset) and in the field of (international) payments. Those texts will be discussed in order to ascertain the usefulness of their adoption to enable mobile payments. A short review of some relevant texts, including of a contractual nature, will follow in order to establish a benchmark and ascertain the need for future work. In conclusion, suggestions for establishing a modern enabling framework for mobile payments will be formulated.

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States, see Amelia H. Boss, *Convergence in Electronic Banking: Technological Convergence, Systems Convergence, Legal Convergence*, 2 DREXEL L. REV. 63, 91-92 (2009). For a more detailed analysis, and policy proposals, see Marianne D. Crowe, et al., *Mobile Payments in the United States at Retail Point of Sale: Current Market and Future Prospects* (Fed. Reserve Bank of Boston Pub. Policy, Discussion Paper No. 10-2, 2010) available at <http://ssrn.com/abstract=1615500>.

<sup>5</sup> G.A. Res. 2205 (XXI), U.N. GAOR, 21st Sess., Supp. No. 16, U.N. Doc. A/6594 (Dec. 17, 1966), available at [http://www.undocs.org/A/RES/2205\(XXI\)](http://www.undocs.org/A/RES/2205(XXI)).

## I. UNCITRAL TEXTS ON ELECTRONIC TRANSACTIONS

UNCITRAL has dealt with the law of “electronic commerce” since the 1980s and has prepared uniform legislative texts that have been adopted in numerous jurisdictions.<sup>6</sup> Not only are UNCITRAL texts widely considered as global standards, the fundamental principles underpinning them are universally accepted as the core elements of modern electronic commerce law. These principles include non-discrimination, functional equivalence, and technological neutrality. The principle of non-discrimination requires that electronic transactions shall not be discriminated against solely because of their nature; the principle of functional equivalence establishes that, when certain conditions are met, the legal value of electronic transactions shall be equivalent to that of other forms of communication, such as those in writing; the principle of technological neutrality mandates that the law shall not demand the use of any specific technology but shall accommodate all existing and future technologies by using generic terms.

Not surprisingly, in light of what was said above with respect to the early interaction between electronic communications and payments, in 1987 UNCITRAL had already prepared a Legal Guide on Electronic Funds Transfers.<sup>7</sup> As a result, UNCITRAL has prepared three legislative texts applicable to both domestic and cross-border electronic transactions: the UNCITRAL Model Law on Electronic Commerce,<sup>8</sup> the UNCITRAL Model Law on Electronic Signatures,<sup>9</sup> and the United Nations Convention on the Use of Electronic Communications in International Contracts

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<sup>6</sup> Information on the UNCITRAL texts on electronic commerce is available on the UNCITRAL website. See *Electronic Commerce*, UNCITRAL, [http://www.uncitral.org/uncitral/en/uncitral\\_texts/electronic\\_commerce.html](http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce.html).

<sup>7</sup> UNCITRAL LEGAL GUIDE ON ELECTRONIC FUNDS TRANSFER, U.N. Sales No. E.87.V.9 (1987), available at [http://www.uncitral.org/pdf/english/texts/payments/transfers/LG\\_E-fundstransfer-e.pdf](http://www.uncitral.org/pdf/english/texts/payments/transfers/LG_E-fundstransfer-e.pdf).

<sup>8</sup> UNCITRAL MODEL LAW ON ELECTRONIC COMMERCE WITH GUIDE TO ENACTMENT, U.N. Sales No. E.99.V.4 (1996), available at [http://www.uncitral.org/pdf/english/texts/electcom/05-89450\\_Ebook.pdf](http://www.uncitral.org/pdf/english/texts/electcom/05-89450_Ebook.pdf).

<sup>9</sup> UNCITRAL MODEL LAW ON ELECTRONIC SIGNATURES WITH GUIDE TO ENACTMENT, U.N. Sales No. E.02.V.8 (2001), available at <http://www.uncitral.org/pdf/english/texts/electcom/ml-elecsig-e.pdf>.

(“Electronic Communications Convention”).<sup>10</sup>

The UNCITRAL texts on electronic communications provide a comprehensive set of rules. The definitions of “data message” and “electronic communication” contained therein encompass communications exchanged via mobile devices (“mobile communications”). Therefore, mobile communications normally fall under the scope of general legislation on electronic transactions enacting UNCITRAL model laws, and of the Electronic Communications Convention. This conclusion is supported also by case law.<sup>11</sup>

However, mobile communications sometimes pose special challenges and thus require additional specific provisions. These particular issues arose at a dedicated session of the UNCITRAL Colloquium on Electronic Commerce.<sup>12</sup> The conclusion at that colloquium was that certain features of mobile communications could indeed pose peculiar difficulties, particularly in relation to: the ability to gain access to large documents, both in terms of readability and of cost of download; the ability to archive information on the user side, given the comparatively short average usage period of mobile devices, and their limited storage capability, especially for lower-end models prevalent in developing countries; and the ability to sign documents with advanced signature technologies, such as those based on public-key

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<sup>10</sup> U.N. Convention on the Use of Electronic Communications in International Contracts, G.A. Res. 60/21, U.N. GAOR, 60th Sess., Supp. No. 49, U.N. Doc. A/RES/60/21 (Dec. 6, 2005), available at [http://www.uncitral.org/pdf/english/texts/electcom/06-57452\\_Ebook.pdf](http://www.uncitral.org/pdf/english/texts/electcom/06-57452_Ebook.pdf) (registration with U.N. Secretariat pending; treaty enters into force on March 1, 2013).

<sup>11</sup> Interestingly, such case law comes from South Africa, possibly the Sub-Saharan country with the most developed ICT infrastructure. The decisions are available in the CLOUT (Case Law on UNCITRAL Texts) system, managed by the UNCITRAL secretariat: *Jafta v. Ezemvelo KZN Wildlife*, CLOUT case no. 964, and *Sihlali Mafika v. South African Broadcasting Corporation Ltd.*, CLOUT Case No. forthcoming. They can be accessed online at: [http://www.uncitral.org/uncitral/en/case\\_law.html](http://www.uncitral.org/uncitral/en/case_law.html). See also Z. Ntozintle Jobodwana, *E-Commerce and Mobile Commerce in South Africa: Regulatory Challenges*, 4 J. INT’L COM. LAW & TECH. 287 (2009).

<sup>12</sup> The colloquium was held in New York on February 14-16, 2011.

infrastructures, particularly in light of the simpler technology prevalent in developing countries.<sup>13</sup>

Those discussions highlight interesting elements that deserve accurate consideration. However, appropriate solutions seem available for technological issues. Rather, the limited awareness of legislators and other stakeholders with respect to the applicable legislative framework seems to be the real challenge to the legal predictability of mobile communications, including mobile payments. Indeed, the very notion that mobile communications are a subset of electronic transactions is not yet fully consolidated. More generally, the need for an enabling environment seems underestimated by decision-makers, while their legislative efforts are concentrated on the regulatory side. In particular, a discussion on how to enable such exchanges across borders has yet to take place, despite existing regional economic integration.

For example, member states of the East African Community are adopting enabling legislation based on a regional model law inspired by UNCITRAL texts, thanks to a dedicated capacity building project managed by the East African Community and the United Nations Conference on Trade and Development (UNCTAD). Mobile payments are prevalent and used massively on a daily basis in East Africa. Thanks to the uniform model legislation, the adoption of the Electronic Communications Convention, the fundamental text to enable cross-border electronic transactions, would require very limited additional legislative work by East African states. However, none of those states has yet adopted the Convention. Similar considerations may be made with respect to Association of Southeast Asian Nations (ASEAN) member States.

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<sup>13</sup> U.N. Comm'n on Int'l Trade Law, Present and Possible Future Work on Electronic Commerce: Note of the Secretariat, ¶¶ 41-45, U.N. Doc. A/CN.9/728 (March 21, 2011), available at <http://www.undocs.org/A/CN.9/728>.

## II. THE UNCITRAL MODEL LAW ON INTERNATIONAL CREDIT TRANSFER

UNCITRAL adopted its Model Law on International Credit Transfer (MLICT)<sup>14</sup> in 1992 in response to two major changes: the increasing use of electronic means in payment orders, and the shift from a prevalence of debit transfers to a prevalence of credit transfers.<sup>15</sup> In this respect, it should be noted that credit transfers are considered simpler, less prone to error and fraud, and therefore better suited for electronic transposition than debit transfers.<sup>16</sup> The MLICT is compatible with paper-based payment orders, but was actually designed with particular reference to “high speed electronic credit transfers.”<sup>17</sup>

While mobile payments are more similar in structure to debit transfers than to credit transfers, the distinction between the two categories is being reduced.<sup>18</sup> Hence, while the adaptation of rules in the MLICT to mobile payments could require keeping in mind the possible need to adapt them to a debit transfer environment, fundamental issues remain similar.

The MLICT was drafted with banks in mind as handlers of payment orders. The issue of the text’s applicability to non-banking institutions was raised with respect to European postal and telephone authorities.<sup>19</sup> Moreover, concerns were expressed in regard to the possibility that purely transmitters of information, i.e., entities involved in the movement of funds only on a technical

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<sup>14</sup> UNCITRAL MODEL LAW ON INTERNATIONAL CREDIT TRANSFERS, U.N. Sales No. E.99.V.11 (1994), available at <http://www.uncitral.org/pdf/english/texts/payments/transfers/ml-credittrans.pdf> [hereinafter MLICT].

<sup>15</sup> A debit transfer is initiated by the beneficiary of the funds, while a credit transfer is initiated by the originator of the payment order.

<sup>16</sup> Robert C. Effros, *Introduction* to PAYMENT SYSTEMS OF THE WORLD at xxix (Robert C. Effros ed., 1994).

<sup>17</sup> Eric E. Bergsten, *A Payments Law for the World: UNCITRAL Model Law on International Credit Transfers*, in PAYMENT SYSTEMS OF THE WORLD 407, 429-31 (Robert C. Effros ed., 1994).

<sup>18</sup> Ronald Mann, *Making Sense of Payments Policy in the Information Age*, 93 GEO. L.J. 633, 652 (2005).

<sup>19</sup> Bradley Crawford, *International Credit Transfers: The Influence of Article 4A on the Model Law*, 19 CAN. BUS. L. J. 166, 180 (1991).

level such as message systems, would fall under the scope of the MLICT. As a result, Article 1(2) of the MLICT specifies that “this law applies to other entities that as an ordinary part of their business engage in executing payment orders in the same manner as it applies to banks.” Legislation based on the MLICT would therefore cover mobile payments effected through a mobile network operator.

The MLICT does not exclude payments to consumers from its scope of application, but, at the same time, does not deal with consumer protection, an issue that may give rise to challenges. In fact, small and medium-sized enterprises represent a significant share of the users of mobile payments in developing countries, while consumers are prevalent in the case of micropayments. Therefore, the need to choose between conflicting rules may arise if opposite goals are at stake.

However, it seems important to distinguish between provisions beneficial to all users in light of the technical features of the device used for the transaction, and provisions specifically aimed at consumer protection. An example of the former may be a rule akin to that contained in Article 14 of the Electronic Communications Convention, encouraging the implementation of mechanisms under which automated systems provide a summary of the information input by human beings, thus giving an opportunity to review and eliminate input errors before final submission. At the same time, provisions designed for consumer protection should be strictly technology neutral, and the imposition of special rules for mobile payments vis-à-vis paper-based, or even other electronic payment methods, would violate that fundamental principle. This approach is in line with the general recommendations made for electronic contracting.

With respect to the general architecture of the payment, it should be noted that the majority of mobile payments may currently take place under the simplest scheme: the mobile network operator transfers a sum from the account of the payer to the account of the payee, and both accounts are maintained with that operator. This scheme does not pose significant issues from the perspective of the payment, while it still calls for basic provisions relating to the use of electronic transactions. However, when the payment takes place in favor of a beneficiary holding an

account with another mobile network operator, in the same country or in another country, the role in the transaction of that second mobile network operator will also need to be taken into consideration.<sup>20</sup> These are also cases that need to be enabled by the law, since they promote competition among mobile network operators, including across borders. The MLICT contains the rules necessary to enable such scenarios. In fact, while the MLICT only refers explicitly to international credit transfers, its provisions also apply to domestic transfers.<sup>21</sup> The limitation to international transfers in the language used by the MLICT seems mostly due to the terms of references given to that Working Group by the Commission, and not to the content of the MLICT itself. The importance of the adoption of rules on the relation between mobile network operators (in the language of the MLICT, they would be referred to as “sending bank” and “receiving bank”) cannot be over-emphasized. Those rules will, in fact, determine when the payment takes place, in what currency, and other similar critical elements.

Under the MLICT, the payment “is completed when the beneficiary’s bank accepts a payment order for the benefit of the beneficiary.”<sup>22</sup> This rule was chosen to place the risk that the payment could not be completed due to insolvency of the beneficiary’s bank on the beneficiary.<sup>23</sup> This rule could be adequate for a market where several large professional operators compete in offering payment services, but the different nature of the clients of most mobile payments (consumers, or small and medium-sized enterprises) and the limited choice of mobile network operators, due to the oligopolistic nature of that market, might recommend a different choice. For instance, mobile payments could be considered completed when the sum is credited on the account of the beneficiary. It should be noted that this moment might have important consequences with respect to the time of performance of the underlying obligation, such as, for instance, the payment of the price for a good or service sold. The

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<sup>20</sup> Different again would be the case where the beneficiary holds no account.

<sup>21</sup> Bergsten, *supra* note 17, at 437-38.

<sup>22</sup> MLICT, *supra* note 14, at 13 (art. 19(1)).

<sup>23</sup> Bergsten, *supra* note 17, at 489.

validity of the payment and the validity of the underlying obligation should, however, remain distinct matters.

A rule particularly relevant for mobile payments relates to the so-called “money-back guarantee,” which imposes liability on the originator’s bank for return of the money if the payment is not completed as instructed.<sup>24</sup> The rationale is that the originator has no say in the choice of the intermediary banks, which are chosen by the originator’s bank.<sup>25</sup> In the case of money transfer via mobile network operators, that choice is limited by the location of the account of the beneficiary. It seems therefore useful to introduce a distinction between liability for technical failures, which could remain on the operator of the failing network, and liability for other reasons, which might need more detailed treatment. The liability of the payment service provider could be limited to avoid consequential damages.<sup>26</sup>

In light of the needs of clients, a general duty to assist those clients, including a duty to send certain notices, may be imposed on the payment service provider. Such duties may not be excessive given the technology available. For instance, duties such as those imposed by Article 8(4) and Article 19(2) of the MLICT, relating to the bank notifying the sender (when identified) if the payment order contains insufficient data, may now be easily discharged in an automated manner. In that respect, it should be noted that the sender, under normal circumstances, opts to be reached for communications at the mobile telephone number used to initiate the payment. That telephone number, to which a Short Message Service (SMS) may be sent, is therefore a valid designated electronic address.

The provision contained in Article 5(2) of the MLICT is also of great interest. It sets forth that a payment order authenticated with a procedure other than mere comparison of signature binds the purported sender if “the authentication is in the circumstances a commercially reasonable method of security against unauthorized

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<sup>24</sup> MLICT, *supra* note 14, at 10 (art. 14).

<sup>25</sup> Bergsten, *supra* note 17, at 463.

<sup>26</sup> See the discussion on consequential damages and the MLICT in Bergsten, *supra* note 17, at 487-88.

payment orders” and the receiving bank has complied with the authentication.

The current prevailing global standard for banking operations calls for at least a double level of authentication.<sup>27</sup> The “commercially reasonable method” standard for security procedures used for payments (also contained in U.C.C. § 4A-202) has recently been better explained,<sup>28</sup> possibly by placing a heavier burden on banks that cannot be easily contracted out. However, mobile telephones already provide for multiple levels of authentication: physical possession of the mobile device is one authentication factor; the ability to turn it on by entering a personal identification number (PIN), when present as is often the case, is a second factor; and the submission of the payment order by entering a separate PIN is a third factor. At the same time, the common statutory choice to limit the liability for credit and debit cards (though to different extents) should not be overlooked as mobile payments may present significant similarities with those cases. Therefore, the policy issue on liability allocation in case the sender is not the person purported to be remains open. The prevailing use, and therefore the amounts in play, may be relevant in finding a solution: while strict liability on consumers may be harsh, stricter rules for professionals transferring higher amounts might be more appropriate.

Equally interesting is the fact that traditionally the risk for payment of an unauthorized order lies with the receiving bank. Here the Working Group made an assumption that the receiving bank could determine the authentication procedure.<sup>29</sup> This cannot be the case with mobile network operators, where the operator equivalent to the “sending bank” determines the authentication procedure.

The MLICT does not allow for revocation of payment orders, except in cases where the receiving bank receives the revocation before the payment is executed (or the credit transfer is

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<sup>27</sup> See, e.g., *Shames-Yeakel v. Citizens Fin. Bank*, 677 F. Supp. 2d 994 (N.D. Ill. 2009).

<sup>28</sup> *Patco Constr. Co., Inc. v. People's United Bank*, No. 11-2031, 2012 WL 2543057 (1st Cir. July 3, 2012).

<sup>29</sup> Bergsten, *supra* note 17, at 443.

completed).<sup>30</sup> Given the speed of electronic transactions, it is unlikely that this mechanism could find application in mobile payments. However, there might be cases where the payment must indeed be revoked, similar, for instance, to reasons for credit and debit card chargebacks.

### III. THE EU PAYMENT SERVICES DIRECTIVE: ANOTHER EXAMPLE OF SUPRANATIONAL LEGAL TEXT APPLICABLE TO MOBILE PAYMENTS

The European Union has dealt extensively with provisions relating to payments, in an effort to build an efficient Single European Payment Area (SEPA). The EU Payment Services Directive (PSD)<sup>31</sup> seems to apply to mobile payments, including mobile remittances.<sup>32</sup>

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<sup>30</sup> MLICT, *supra* note 14, at 9 (art. 12(1)-(2)).

<sup>31</sup> Directive 2007/64 of the European Parliament and of the Council of 13 Nov. 2007 on Payment Services in the Internal Market Amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and Repealing Directive 97/5/EC, 2007 O.J. (L 319) 1 [hereinafter PSD].

<sup>32</sup> According to Press Release, European Union, Payment Services Directive: Frequently Asked Questions (April 24, 2007), *available at* <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/152&format=HTML&aged=0&language=EN&guiLanguage=en>:

Put simply, where a telecom operator makes a payment on behalf of a payment service user to a third party, the payment transaction will fall within the scope of the Directive when operator acts solely as an intermediary making the payment. On the other hand, payments relating to the purchase of digital services such as ring tones, music or digital newspapers which are sent to a mobile phone (or some other digital device e.g. a computer) are not normally covered by this Directive.

However, it should also be noted that Recital 6 of the Regulation 260/2012 of the European Parliament and of the Council of 14 March 2012 Establishing Technical and Business Requirements for Credit Transfers and Direct Debits in Euro and Amending Regulation (EC) No 924/2009, 2012 O.J. (L 94) 22, 23 (implementing the SEPA), indicates that:

Money remittance, internally processed payments, large-value payment transactions, payments between payment service providers (PSPs) for their own account and payments via mobile phone or any other means of telecommunication or

While the PSD has significant regulatory content, it also contains enabling rules. In particular, its Title IV sets the rights and obligations in relation to the provision and use of payment services, and Chapter 2 of that title deals with authorization of payment transactions. Among those topics treated both in the MLICT and the PSD, it should be noted that the PSD contains a rule on evidence on authentication and execution of payments,<sup>33</sup> according to which the burden of proof is on the payment service provider. This could be particularly useful in light of the technical limits in archiving capacity of mobile telephone sets, especially those at the lower price range. The PSD also sets limits of €150 (or at the lower limit set by the Member State) on the payer's liability for unauthorized payments occurring before the notification of the loss, theft or misappropriation of the payment instrument or of its unauthorized use.<sup>34</sup> However, those limits do not apply in case of low-value payment instruments (and electronic money).<sup>35</sup>

Chapter 3 of Title IV of the PSD deals with payment orders, providing rules for their receipt, refusal and for determining the amounts transferred and received. Payment orders are usually irrevocable, unless agreed otherwise, and with the exception of direct debit payments revoked at least the business day prior to the date agreed for the payment.<sup>36</sup>

The same chapter also provides rules for the time of execution of the payment and the value date, as well as liability issues. With regard to the latter, as a general rule the payment service provider

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digital or IT device should not fall within the scope of those rules since those payment services are not comparable to credit transfers or direct debits. Where a payment card at the point of sale or some other device such as a mobile phone is used as the means to initiate a payment transaction, either at the point of sale or remotely, which directly results in a credit transfer or a direct debit to and from a payment account identified by the existing national basic bank account number (BBAN) or the international bank account number (IBAN), that payment transaction should, however, be included.

<sup>33</sup> PSD, *supra* note 31, at 28 (art. 59).

<sup>34</sup> *Id.* at 28 (art. 61(1)).

<sup>35</sup> *Id.* at 26-27 (art. 53). These are payment instruments whose individual transactions may not exceed €30 and with a spending limit of €150.

<sup>36</sup> *Id.* at 30 (art. 66).

is liable for non-execution or defective execution of the payment order.<sup>37</sup> A number of detailed duties are listed. Moreover, the payment service provider is not liable if the unique identifier of the beneficiary provided by the payer is incorrect. However, the payment service provider shall make reasonable efforts to recover the wrongly transferred funds.<sup>38</sup> In mobile payments, the telephone number of the beneficiary may be used as a unique identifier. A similar rule might therefore be particularly useful.

In conclusion, the PSD is a rather complex text and contains a number of provisions directly relevant to mobile payments. Some of them overlap with those of the MLICT.<sup>39</sup>

#### IV. THE CURRENT STATUS OF MOBILE PAYMENTS LEGISLATION IN DEVELOPING COUNTRIES: THE CASES OF KENYA AND TANZANIA

Before advocating new work in the field, possibly on the basis of the MLICT and of the PSD, it is advisable to verify actual needs of the potential recipients. Kenya and Tanzania, two developing countries with significant mobile payments markets, may provide useful information.

At the statutory level, Kenya has adopted electronic transactions legislation. However, this is not considered sufficient for the needs of all commercial operators, including the needs of mobile payments providers. In 2011, Kenya adopted the National Payment System Bill, which mostly contains regulatory content, but explicitly allows the use of electronic means when providing payment services in its Article 2, sub-definition of “payment service provider.”

Tanzania does not have an electronic transactions act or a national payment system act. Currently, the Bank of Tanzania is preparing draft mobile payments regulations.<sup>40</sup> Mobile payments

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<sup>37</sup> *Id.* at 31-32 (art. 75).

<sup>38</sup> *Id.* at 31 (art. 74(2)).

<sup>39</sup> In turn, the MLICT had influenced the predecessor of the PSD, i.e., Directive 97/5 of the European Parliament and of the Council of 27 January 1997 on Cross-Border Credit Transfers 1997 O.J. (L 43) 25.

<sup>40</sup> Alawi Masare, *BoT to Check Mobile Payments in Tanzania*, THE CITIZEN

have nevertheless been offered in the country since 2007.

Useful elements for the assessment may be found in the contractual provisions of two major mobile network operators offering payment services: Safaricom's M-PESA in Kenya and Vodacom's M-PESA in Tanzania.<sup>41</sup> Those provisions deal with several issues discussed in the MLICT and the PSD.

Vodacom indicates that the user shall be responsible for all losses incurred in case of damage, loss, or theft of the SIM card, prior to notification of such loss.<sup>42</sup> Transactions are effected and sums debited or credited when the sum is actually credited to, withdrawn, or transferred from the user's account.<sup>43</sup> However, the rules for the exact determination of the time when the credit, withdrawal, or transfer is considered completed remain unclear. The user may not reverse or chargeback payments.<sup>44</sup> The liability of the mobile network operator is limited in several ways, including for losses arising from "particular circumstances," even if known to the operator.<sup>45</sup> The mobile network operator is also not liable for technical malfunctions resulting "from circumstances beyond . . . reasonable control."<sup>46</sup> These two rules depart significantly from the principle that risk should be allocated where it could be best prevented.

Safaricom specifies that the use of the PIN represents the authentication method and that operations entered under the legitimate PIN will be considered as validly performed by the user.<sup>47</sup> Safaricom also offers, for instance, a rather comprehensive system of notification both for complete and incomplete

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REPORTED, March 12, 2012, available at <http://mobilemoneyafrica.com/bot-to-check-mobile-payments-in-tanzania/>.

<sup>41</sup> *Customer Terms & Conditions*, SAFARICOM (on file with author) [hereinafter SAFARICOM Customer Terms & Conditions]; *Terms & Conditions*, VODACOM available at <http://www.vodacom.co.tz/vodacom-m-pesa/terms--conditions> (July 20, 2012) [hereinafter VODACOM Terms & Conditions].

<sup>42</sup> VODACOM Terms & Conditions, *supra* note 41, at r. 4.

<sup>43</sup> *Id.* at r. 8.

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at r. 13.

<sup>46</sup> *Id.* at r. 16.

<sup>47</sup> SAFARICOM Customer Terms & Conditions, *supra* note 41, at 4.

payments.<sup>48</sup> Payments may not be reversed; however, Safaricom may determine, at its sole discretion, the reversal of a payment in case of fraud or error, if the recipient has not yet redeemed the e-money and the claim is made within one month of the transaction date.<sup>49</sup> Safaricom limits its liability to the maximum account balance limit for a single event or series of events;<sup>50</sup> however, it accepts liability for failure in the M-PESA transmission system (though not in other systems).<sup>51</sup>

### CONCLUSION

A quick survey of the provisions available in developing countries shows significant differences, despite the fact that those provisions are prepared unilaterally by mobile network operators and accordingly reflect policy choices. Moreover, those rules are not comprehensive<sup>52</sup> and may unduly penalize users. Nevertheless, contractual rules are the preferred solution given the gaps in the national legislation.

In light of these findings, it seems that the preparation of uniform enabling legislative or contractual provisions for mobile payments could be useful and timely. The argument against uniformity in payment laws, based on the fact that users, including consumers, may prefer to have a menu of options to choose from, and to bargain conditions individually,<sup>53</sup> may not apply in a market where service providers are necessarily few due to the licensing system of mobile networks.

A uniform reference text could help in overcoming national

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<sup>48</sup> *Id.* at 5.

<sup>49</sup> *Id.* at 5.

<sup>50</sup> *Id.* at 7.

<sup>51</sup> *Id.* at 7.

<sup>52</sup> It is doubtful that existing rules in Kenya and Tanzania would address exhaustively all four fundamental questions that “at its heart, payments law must resolve”: who bears the risk of unauthorized payments; what must be done about claims of errors; when payments are completed and when they can be reversed. Mann, *supra* note 18, at 638. Of course, differences in the level of detail provided are significant between those two jurisdictions.

<sup>53</sup> Clayton P. Gillette & Steven D. Walt, *Uniformity and Diversity in Payment Systems*, 83 CHI.-KENT L. REV. 499 (2008).

differences and would be particularly useful in addressing legal challenges arising from cross-border transactions. In particular, it could address a matter that was left open by the MLICT, i.e., the possibility of having a unique legal regime applicable to cross-border payments. The option of choosing only one applicable law was not accepted in the MLICT in order to avoid the possible application of a law unfavorable to non-bank entities involved in the payment.<sup>54</sup>

Specialists who discussed the topic at the previously mentioned UNCITRAL Colloquium on Electronic Commerce reached similar conclusions. In discussing the suitability of the MLICT as a basis for legislation for mobile payments, Professor Benjamin Geva concluded that:

Low-value credit transfers were envisaged as covered by the Model Law and yet were not central in the work leading to it. From this perspective, it is encouraging to find that, overall, the Model Law is appropriate to cover them. Consumer aspects, primarily as to disclosures are nevertheless to be added; consumer's liability for unauthorized transfers is to be rethought and redrafted.<sup>55</sup>

At the same colloquium, Professor Maria Chiara Malaguti also concluded that an updated and revised text, more focused on non-traditional payments instruments and, dealing specifically with legal aspects of the activities of mobile network operators, "would be of enormous benefit at this point in time."<sup>56</sup>

One manner of dealing with the issue could be to prepare standard contractual rules, to be enacted voluntarily by mobile

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<sup>54</sup> Bergsten, *supra* note 17, at 496.

<sup>55</sup> Benjamin Geva, *UNCITRAL Model Law on International Credit Transfers and M-Payments: Do They Match?*, Presentation at UNCITRAL Colloquium on Electronic Commerce, (Feb. 14-16, 2011), available at <http://www.uncitral.org/uncitral/en/commission/colloquia/electronic-commerce-2010program.html>.

<sup>56</sup> Maria Chiara Malaguti, Brief Notes to Support New Consideration of the 1992 Model Law on International Credit Transfers (distributed at the UNCITRAL Colloquium on Electronic Commerce, Feb. 14-16, 2011) (on file with the author).

network operators. This solution would be consistent with the favor for co-regulation in the ICT sector.

UNCITRAL could be an appropriate forum for this discussion, especially if this task is seen, as it should be, in the broader framework of the need for modern rules for all forms of electronic payments. Departures from general principles in the field of electronic payments to accommodate special needs of mobile payments should be kept to a bare minimum.

One major practical obstacle to having UNCITRAL work on the law of mobile payments is the fact that the matter is not seen as urgent or relevant by several countries active in defining UNCITRAL's work agenda. Developing countries interested in the topic should express their needs and aspirations in a coordinated manner if they wish to see mobile payments on that agenda. The importance of a modern uniform legislative framework for mobile payments for the achievement of fundamental policy goals, such as the promotion of small and medium-sized enterprises, should also be stressed in order to get adequate attention from stakeholders.

