As operators adopt a more customer-centric approach the traditional assumptions about prepaid and postpaid have become outdated.
The rapid popularization of the mobile phone in the 1990’s was largely due to two key innovations:

- the widespread adoption of global standards which created a flourishing industry of mobile device manufacturers bringing ever more affordable and seductive devices to the market, and

- the introduction of prepaid as a payment option, which made mobile services available on a mass-market scale.

These innovations turned what was considered a luxury item in the early 1990s into an iconic item for both youth and adults by the turn of the century.

The relative popularity of prepaid versus postpaid is informative. In SE-Asia prepaid mobile represents around 80-90% of the mobile subscriber base. This is the case in countries such as Indonesia, Philippines, Thailand and Vietnam. Within the same region, countries such as Singapore and Australia, have a greater proportion of postpaid subscribers than prepaid.

ARPU levels remain significantly lower for prepaid than postpaid (e.g. around 60-70% lower ARPU for prepaid than postpaid). Consequently postpaid is typically associated with higher ARPU customers, and prepaid is associated with lower ARPU customers.

Since its early beginnings, operators saw prepaid as a way to introduce mobile services into progressively lower ARPU customer segments in the market. Why was this so?

- The absence of ongoing financial commitment without monthly fees or contractual lock-ins made prepaid more attractive to people with irregular income or difficulties managing their finances, as well as to those who were not convinced that they needed to use their mobile service on a regular basis.

- The automatic spending control that came from the blocking of services when credit ran out helped users feel “in control”.

- The simplified registration process and absence of credit history checks promoted “impulse buying”, thereby extending the channels through which both devices and services were sold beyond telecom operator channels to include supermarkets, convenience stores and general retailers.

Figure 1 – Mobile phone payment method across South East Asia.
Interestingly early prepaid and postpaid marketing and pricing approaches did not focus on reduced prices to customers. Discounted pricing was not considered an option, since the primary service offer was voice, leaving very little room for differentiation between prepaid and postpaid segments.

However as device manufacturers promoted the introduction of ever more desirable devices fuelling consumer demand for upgrades, operators introduced new services for these new devices. This process was accelerated by operators providing device subsidies linked to fixed-term contracts, and which in general were only made available on postpaid contracts.

Consequently in many countries a gap was created between prepaid customers (with a more distant operator relationship, higher churn and higher unit service prices with a lower overall spend) and postpaid customers (with more expensive devices, complex services, and predictably higher spend).

However one can argue that the lower ARPU associated with prepaid customers has been a self-fulfilling prophecy. In an attempt to attract more customers towards postpaid services (perceived as "higher ARPU"), many operators made initial prepaid data / mobile broadband offers so unattractive that customers interested in those services were effectively forced into postpaid contracts.

Figure 2 - Traditional drivers of prepaid vs postpaid offers
The current decade is the second wave of mobile communications, in which data usage has overtaken voice usage. The impact of mobile broadband on the telecommunications industry and wider economy is huge, driving the creation of entirely new markets and businesses.

For operators now confronting saturating mobile markets, “Customer Experience” has emerged as their key differentiator. Consequently flexibility in charging, which promotes enhanced customer satisfaction, has become a necessary feature in popular customer packages.

Three key areas are proposed for operators to focus on when rethinking payment models:

1. Disconnect credit worthiness from potential ARPU
2. Focus on the customer, not the device
3. Innovate in payment models

1. Disconnect credit worthiness from potential ARPU

Today a customer’s credit worthiness effectively decides whether they are eligible for prepaid or postpaid services rather than their ARPU potential. Although these two metrics may be correlated (low credit worthiness clients tend to generate lower ARPU), they are by no means the same, and recognizing this fact can lead to the definition of better targeted offers.

Allowing a negative account balance is a good example of a “low ARPU, high credit worthiness” targeted initiative for selected customers. Many operators have started allowing negative balances to their best prepaid customers, as a means to not inhibit their service usage prior to reloading additional credit. This has several advantages: the customer experience is better, while the operator increases the usage of its service and its revenues, as long as the customer tops-up their account. Experience shows that this offer works best when a negative account balance allowance is offered to customers based on their behavioural patterns, rather than ARPU.

Short term offers for international visitors is an example of a “high ARPU, low credit worthiness” targeted initiative. High roaming charges make multi-day pass SIM cards a reality, and operators are already seizing this opportunity. International visitors can be potentially high ARPU clients (albeit for the short period of time that either business or holiday trips last) but credit checks are not practical and long-term contracts are not applicable, so their credit worthiness cannot be established.

Another consideration is device financing. The customer’s appetite for new, feature-rich devices combined with operators promoting advanced services, such as high-speed mobile broadband, streaming video and music services, creates a dilemma as many customers may not be able to afford these new devices as an outright purchase. This is particularly true in emerging markets throughout South East Asia. Operator device financing, rather than device subsidizing (which would reduce overall customer profitability), is becoming more common across both advanced and developing markets. This model tends to suit a post-paid relationship better than a prepaid relationship, or a hybrid of the two for customers who want the ‘latest device’ with strict spending control on services. Due to the long term nature of the relationship and the financing involved, it requires credit worthiness assessment, and yet its target includes medium and low ARPU clients.
Maintain loyalty/rewards to minimise churn

Boost Upscale offers to maximise ARPU

Focus Offers independent of payment method

Upsell Make it easy for users to try new services

Maintain Build loyalty/rewards to minimise churn

Focus Offers independent of payment method

Upsell Make it easy for users to try new services

DIFFERENTIATING CREDIT WORTHINESS FROM ARPU POTENTIAL

1. GrameenPhone, Bangladesh - Star subscriber status, based on average spend per month and number of years as a customer, provides differentiated service, exclusive offers and negative credit balance allowance exclusively to the best prepaid customers.

2. SingTel, Singapore - Targeting tourist and business visitors, SingTel offers unlimited mobile broadband usage for 3 consecutive days for a fixed daily fee.

3. Umobile, Malaysia - Provides an additional 250 MB of data allowance for postpaid customers that sign up for auto-debit to a credit card, automating the bill payment process and building customer loyalty.

Figure 3 - Focus on consumer segment needs rather than payment method to grow ARPU and increase loyalty
2. Focus on the customer, not the device

The number of devices per customer continues to grow rapidly in developed and emerging markets. Customers are likely to have smartphones, tablets, connected cameras, WiFi hotspots and more.

Traditional operator approaches to this opportunity include multi-play bundles (triple or quadruple play), and multi-line offers such as family plans, small enterprise bundles and multi-residence plans. Typically, these bundled plans are based on postpaid offers.

Advanced operators are innovating to take this one step further, offering data plans that can be shared across multiple devices, thereby simplifying the customer decision to connect additional devices. In particular, tablets have been a significant driver; their popularity is growing rapidly and they represent a completely new device category that benefits greatly from connectivity.

An increasing number of connected devices (connected cars, cameras, medical devices, etc.) present a revenue growth opportunity for operators. What is clear is that the billing relationships that will be required to support the broad range of customer needs will require flexibility beyond simple prepaid and postpaid models.

BEYOND DEVICES - OPERATORS ARE FOCUSING ON CUSTOMERS’ NEEDS

1. Movistar, Spain. Movistar Fusion is an example of a successful quadruple play bundle (fixed voice and broadband, TV, and mobile) with significant savings that has forced a competitive reaction by other service providers in the market.

2. Vodafone, Australia: Vodafone’s Business Elements demonstrates flexibility of allocating service quotas across multiple business users.

3. Verizon Wireless, USA: Introduction of unlimited mobile voice and text, in addition to shared mobile data plans across multiple devices, is proving popular with customers and commercially attractive for Verizon.
3. Innovate with payment models

Service differentiation and innovation is a key area of focus for many operators today – especially considering the increased competition from Over The Top (OTT) players who are offering directly competing services for voice, messaging and entertainment, and which are typically funded by models other than subscription. Rather than attempting to limit and control customers’ use of mobile broadband, a more beneficial approach is to explore new payment methods that provide true customer value.

Examples include the Amazon e-reader with 3G or 4G built-in capability, enabling customers to purchase products and services anywhere, anytime. Partnering with such innovative new devices provides an opportunity for operators to explore these new business models - with or without a direct customer relationship - but at least securing a place in the value chain.

New payment methods can help operators differentiate themselves from competitors by providing users with better spending control, more convenient payment options, predictability of charges, and transparency. Focusing on optimizing customer experience as the basis of innovation is a good starting point.

PAYMENT MODEL INNOVATION IN ACTION

1. Telstra, Australia - Telstra’s Pre-Paid Facebook App allows prepaid users to view service usage and recharge history, recharge with a credit card (stored credit) and vouchers, as well as enabling credit transfer from friends on this platform.

2. Amazon (in association with AT&T), Global: Kindle 3G readers offer mobile connectivity without having to sign any contract with the operator. The customer relationship is directly with Amazon.

3. Astro, Malaysia: Astro NJOI is a no-contract, prepaid satellite TV service recently introduced in Malaysia.
WHAT DOES IT TAKE?

It is obvious that different operators will take different approaches towards this blurring of prepaid and postpaid because of their different starting points and their different strategies. Nonetheless, Ericsson’s experience has shown the existence of certain critical success factors.

1. Executive commitment

The first and perhaps biggest hurdle in moving towards a converged approach to payment methods based on customer needs is the mindset change and ongoing focus that is required from the CEO and senior leaders through to sales, marketing, operations and customer support. There must be a willingness to ‘do things differently’; to focus on new opportunities rather than existing or perceived technology or market limitations. The old divisions between prepaid and postpaid run surprisingly deep in many operators, and without determined effort the existing structures and mind-sets may stall change.

A clearly articulated vision, effective internal communication and strong governance over the change process are needed to successfully drive any change that effects so many departments and processes.

2. Business strategy

It is notable that many operators make claims about their focus on customer experience while at the same time in their annual reports they split their revenues between prepaid and postpaid “segments”.

“Prepaid” and “postpaid” are not segments, because they are not characteristics of customer demand. The size of prepaid and postpaid revenues will depend on how much of the demand for communication services is fulfilled by the operators various offers (which may include variants of prepaid and postpaid). It is up to the operator to define the best way to address the real segments, that is the different pockets of potential demand for their services based on things like demographics, purchasing power, credit worthiness or technological sophistication (to name a just a few key dimensions). Only by doing so can an operator be truly innovative in their “go to market” strategy.

3. Technology strategy

Most of the concepts discussed in the paper can be implemented as incremental changes with today’s legacy systems. However, the separation - and in some cases even isolation - between the BSS/OSS systems supporting prepaid and postpaid customers can be a significant impediment to change.

Figure 4 - Evolution of Charging System Architectures
The separation between prepaid and postpaid is slowly being removed as operators evolve their charging systems. Today there are operators who have moved from the traditional charging architecture with its rigid distinction between prepaid and postpaid systems, to a mixed architecture in which common system elements are used to handle both prepaid and postpaid. However only the most advanced operators have realized an architecture with which they are able to manage their customers’ charging requirements independently of the service they are using.

A particular driver of this evolution is the extension of real-time charging. Real-time charging is no longer considered merely as a necessity imposed by prepaid; it is now perceived as a requirement for proper credit control and complex service logic orchestration. Consequently real-time charging is now perceived to be a requirement for all services.

While the evolution of charging systems may seem daunting, the operators who have deployed converged charging systems supporting both prepaid and postpaid, and combinations of both are realizing very real benefits today.

An example is MTN Congo, who announced the introduction of a converged billing and charging system in 2010. They report the following customer benefits,

- customers have increased visibility of their usage; more control of their spend (addressing one of their customer’s greatest needs) and access to a wider choice of services with no prejudice between prepaid and postpaid.
- customers accessing multiple services (such as fixed network type services, ISP or data amongst others), receive just one bill, detailing their usage, instead of individual bills for each service type.
- customers can customise their payment options, based on personal preference, electing to either prepay or postpay or have a combination of both.

Through this converged charging and billing solution provided by Ericsson, MTN is able to offer seamless services across all end-user segments. The solution provides a single revenue management solution for all subscribers and services and includes key features such as discount and promotion handling, real-time rating, segmentation, pricing and promotions.

Wind Hellas is a European operator who identified the modernization of their BSS as a key strategic requirement. From 2012, after a two-year charging transformation project, they now enjoy the benefits and reduced operational costs of a single converged charging and billing architecture, that supports both fixed and mobile, as well as prepaid and postpaid subscribers.

Since going live with the system, WIND Hellas has launched a number of new services, including the WIND card. Prepaid users can access options they did not have before, such as real-time information on their usage costs, and postpaid subscribers are benefiting through real-time charging. WIND Hellas is in the process of utilizing the features of the new system as much as possible, such as managing e-voucher promotion schemes. They have already seen a reduction in the churn rate of prepaid customers.

**ADVANCED OPERATORS**

MTN Congo is a member of the MTN Group which has considerable experience in rolling out sophisticated networks in some of the least developed countries in the world. Today MTN has GSM licences in 21 countries and internet service provider businesses in 13 countries, spanning three continents.

Wind Hellas is an integrated telecommunications provider with headquarters in Athens, Greece, offering Mobile, Fixed and Internet services, from a single point of sale and service, under a single bill. Wind is the 3rd largest mobile operator in Greece with more than 3.5 million customers.
When discussing convergent charging with operators around the world certain responses can be predicted.

1. Operators in developed countries

Operators in developed countries often make the assumption that with an affluent and advanced user base using the latest 3G and LTE services, they have little to learn from emerging countries.

However the operators in developed countries are typically struggling with a legacy of multiple uncoordinated prepaid and postpaid systems. It requires strong commitment for such an operator to even begin to replace these systems. Consequently the first operator in the market to do so is likely to secure a formidable advantage over competitors.

As many operators in emerging countries are very new (some even “greenfield”), they naturally have installed the latest modern real-time charging systems for their pre-dominantly prepaid customers, and enjoy a degree of flexibility that operators in developed countries can only dream of – and can certainly learn from.

2. Operators in emerging countries

Conversely operators in emerging countries may comment that as they already have prepaid charging systems they are well positioned for the future.

But a simple prepaid charging system is not an up-to-date real-time system that handles any combination of prepaid and postpaid options. This is important for operators in emerging countries, as they will need this sophistication to begin to move their customers towards an environment in which each customer is known and dealt with as an individual, with personalized services and support.

An interesting opportunity has been found by operators in some emerging countries where the weakness of the banking systems has allowed the operators to be providers of transactions and fund transfers; to the benefit of customers, and the operator – and to the local economy.
As OTT (OverTheTop) players continue to expand the scope of their service offerings, telecom operators need to innovate faster and faster to avoid being relegated to the role of bit-pipe providers.

The division between prepaid and postpaid customers that has worked for the past 20 years is becoming an obstacle to operator innovation. Customer expectations have rapidly evolved from single device voice-centric services to multi-device data-centric services. Consumers are already demanding more integrated communication offers and more flexibility in payment types based on their individual needs rather than ‘the way it’s always been done.’

A strong focus on meeting customer needs will underpin the ability of successful operators to satisfy and retain customers. Operators who embrace this change will benefit by delighting their customers with flexible offers that genuinely meet their needs, promoting long-term relationships with these customers.
Ericsson’s Business Support Systems (BSS) include solutions for revenue management and customer care. With our convergent real-time charging solution the user gets one invoice for all services. Over 2 billion subscriptions are charged and billed through Ericsson's systems.

With our solutions, operators can more efficiently capture and secure revenue streams. Users benefit too, gaining the ability to start using a new service or device immediately after signing up, as well as having greater control over their spending.

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