THALES

2018 Middle Eastern & African Smart Cards Customer Value Leadership Award

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FROST & SULLIVAN

BEST PRACTICES AWARD

2018

MIDDLE EASTERN & AFRICAN
SMART CARDS
CUSTOMER VALUE LEADERSHIP AWARD

2018

BEST PRACTICES
AWARDS

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International payment networks have created the standards for what is now known as Europay MasterCard and Visa (EMV), for credit and debit payment cards typically issued by financial institutions. The technology embedded in these payment cards continues to evolve, from magnetic strips to chip-based smart cards and today's digital payment.

According to EMVCo, a global technical body that manages EMV® specifications and related testing processes, the use of EMV cards in Africa and the Middle East region continues to increase slowly but steadily. Over the last three years—from 2015 to 2017— adoption of the EMV technology has grown from 61.2% to 68.7% to 74.8%, respectively.[1] Although cash is still the primary medium of exchange, cashless payments are increasingly common as people transact with mobile wallets and chip-cards. The technology itself has become so prevalent that it is also being deployed for universal ticketing in mass transit systems.

Across the African continent, millions of people remain unbanked, a significant challenge for governments, non-governmental agencies, and World Bank. The incumbent market participants, such as MasterCard and Visa, are internationally well entrenched. Although countries are developing domestic schemes such as UAE (Mercury), Saudi Arabia (MADA), Egypt (123), Angola (EMIS), Nigeria (Verve), Algeria (CIB), Morocco (CMI), and Ghana (GhIPPS), the dominant market positions of International payment networks create high barriers of entry that prevent other companies from proposing card payment systems. The transition to domestic schemes means these economies would make use of their own national EMV cards that abide to national rules and standards.

To open up the industry and create opportunity, new participants in the smart card space need to design technology to expand the total addressable market and cater to the growing use of EMV cards in private and domestic schemes.

Customer Impact and Business Impact of Thales

Established in 2006, Gemalto which became Thales is a globally renowned digital security solutions provider. The company has 114 offices worldwide with headquarters in France, Singapore, and the United States. The company specialises in providing embedded software platforms, and accompanying products and services. Although its solutions ultimately benefit consumers, Thales' customers are businesses across different industry verticals, i.e., financial services, government, mobile networks, and machine-to-machine operators.

Technology Enabling Growth of EMV Smart Cards

As part of its offering, Thales designs and develops a white-label payment application called PURE for use by domestic schemes and closed-loop private networks. As previously mentioned, the case for national schemes is growing as local regulators seek to create a platform for innovative, cost-effective banking products for consumers. For example, Angola's domestic payments processor, Empresa Interbaricária de Serviços (EMIS), is introducing EMV chip and pin cards to become the preferred payment card in the national marketplace. According to EMIS, the use of Thales Gemalto's PURE white label solution will enable card branding and distribution in a short space of time[2].

In another case study, Interswitch, a digital payments company, launched its own pan-African pin and chip card brand, Verve, using Thales Gemalto's PURE and thus subscribing to the best practices endorsed by 185 countries around the world for secure electronic financial transactions. With PURE also enabling Verve's compliance with EMV and NFC standards, cards issued by 40 banks across the continent can find a widespread acceptance across 100,600 point-of-sales (POS) terminals, 11,000 automated teller machines (ATM) and at over 1,000 merchants[3].

In Ghana, GhIPSS, a subsidiary of the Bank of Ghana, also selected Thales Gemalto's PURE to implement its migration towards EMV payments. The white-label distribution model empowered GhIPSS with a technical solution already deployed in the continent without altering its independence and sovereignty over its business. Thanks to this, GhIPSS and Interswitch found no difficulty to announce a partnership to extend the reach of Verve cards in Ghana, enabling Verve's about 37 million customers to withdraw cash on ATMs and make purchases on PoS terminals of GhIPSS network of partners. Features—Thanks to technology independence and interoperability, are enabling GhiPSS and Verve to design payment acceptance across several countries, paving the way to wider cross-border acceptance between domestic schemes in Africa.

In Pakistan, 1LINK member banks are launching PURE contact and contactless cards, mobile payments, Host Card Emulator (HCE) and other digital services. PayPak domestic payment scheme is central to efforts to boost financial inclusion in Pakistan where fewer than 20% of the 220 million-strong population have access to formal banking [4].

African Development Bank (AfDB) has identified financial inclusion as the key area of development, Africa lagging behind other continents. Funding programs are also interested to distribute social benefits to the unbanked. Domestic schemes can be instrumental in serving the unserved at lower costs than international brands, in a continent with only 3% of adults having a credit card.
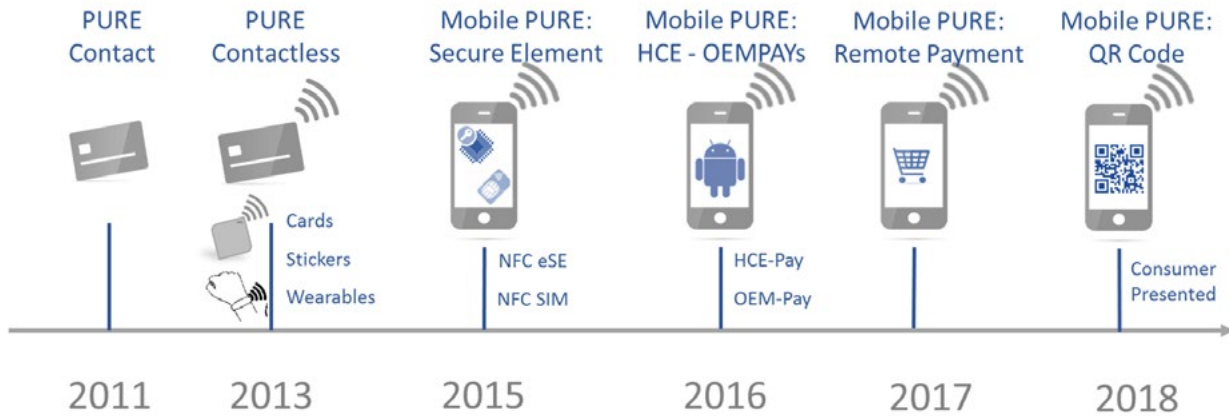
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[1] https://www.emvco.com/about/deployment-statistics/
[2] https://www.finextra.com/pressarticle/72871/angolas-payment-processor-emis-migrates-debit-cards-to-chip-and-pin
[3] https://www.thalesgroup.com/press/
[4] https://propakistani.pk/2018/01/30/1link-selects-gemalto-emv-solution-paypak/

Figure 1: Thales Gemalto's PURE Technology Roadmap

Domestic schemes in Middle East and Africa have short term requirements for card technologies, both contact and contactless. Still, domestic scheme will only set up a payment acceptance if it can accept new form factors such as mobile phones, wearables and connected objects without infrastructure changes.

Thales' key driver with PURE is to empower its customers with tools that enhance their competitive positioning. On top of the card, the PURE application is also available on a smartphone with Android HCE, OEMs wallets such as Samsung Pay and QR Code.

PURE technology roadmap (see figure 1) is embracing all these payment evolutions. In Brazil, Australia, Singapore and France, PURE has supported innovative commercial launches. These initiatives in Asia, Latin America and Europe will certainly also materialize in Africa and Middle East in the coming years.

With Thales Gemalto's EMV card range now including biometric authentication, with a built-in fingerprint sensor and dynamic security code technology, its customers are up to date with the latest payment technologies.

The diverse use-cases of Thales Gemalto's PURE across Middle East, Africa and beyond bode well for the continued adoption of the EMV smart cards and technology. Additionally, the company's digital security solutions and services are renown, boosting its brand in over 180 countries. In 2017, Thales has circulated through its customers over one billion payment cards worldwide, along with its other products such as the stickers and wearables (notably in Saudi Arabia), as well as digitalising several million cards through its digital payment platform.

Positioned for Growth

Thales Gemalto's PURE system features a complete EMV payment application with an ecosystem that includes essential participants, such as card manufacturers, point-of-sale vendors, software and systems suppliers, and test laboratories. More importantly, this ecosystem ensures interoperability between elements of the PURE platform and with existing technologies. For example, card manufacturers sell PURE certified products and likewise, the POS manufacturers sell machines with certified PURE support in addition to the EMV interoperability framework. Test laboratories examine the solutions to guarantee quality of the products as well as the interoperability with banking information technology systems.

Figure 2: The PURE Ecosystem
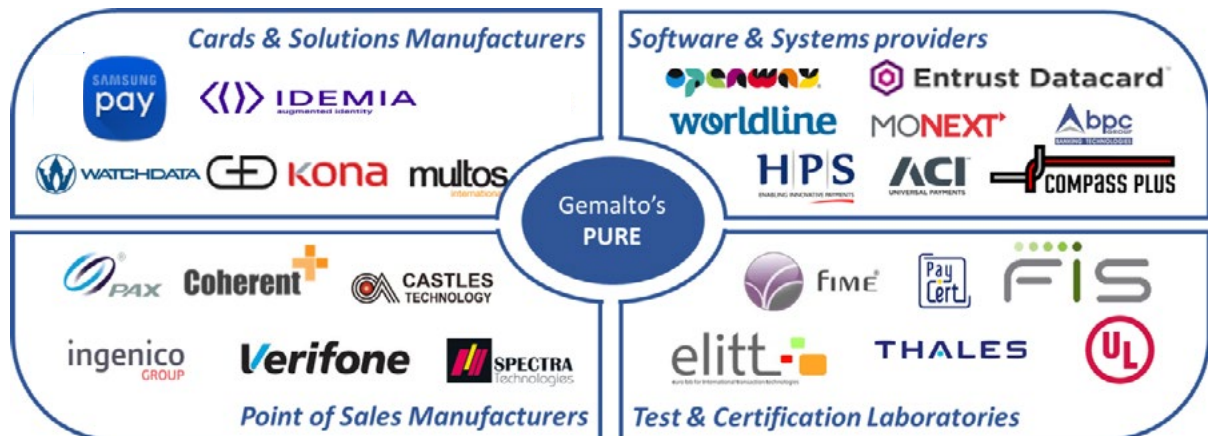
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Conclusion

Established in 2006 and globally renowned, Gemalto which became Thales is a solutions provider for digital security solutions. The company maintains 114 worldwide offices and brand recognition in over 180 countries. One of the company's key product offerings, PURE, empowers its customers with a white-label payment applications infrastructure for domestic schemes or
private networks. PURE also offers its customers various transaction options apart from contact and contactless cards: wearables, cards with built-in fingerprint biometric sensor, contactless solutions with mobile NFC or QR Code, connected cars. This ensures that customers are "future-proof" and compliant with EMV standards.

Today, over 150 million cards with Thales Gemalto's PURE are in circulation, from various card manufacturers in 28 countries. Through its technology, Thales' customers benefit from the diverse ecosystem, enabling payment solutions to function interoperably with point of sale terminals, automated teller machines, and core banking back-end systems.

With its strong overall performance, Thales earns Frost & Sullivan's 2018 Customer Value Leadership Award in Middle East and Africa smart card markets.

Significance of Customer Value Leadership

Ultimately, growth in any organization depends upon customers purchasing from a company and then making the decision to return time and again. Delighting customers is, therefore, the cornerstone of any successful growth strategy. To achieve these dual goals (growth and customer delight), an organization must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.

- Shift competitors' customers
- Increase renewal
- Increase upsell
- Customer value
- Increase market penetration

- Increase equity
- Improve recognition/ recall
- Inspire customers
- Value leadership
- Clarify value proposition

DEMAND

BRAND

Customer Value Leadership

COMPETITIVE POSITIONING

- Clarify superior positioning
- Superior value to customers
- Competitors fall behind
- Best implementation
- Value mapping

Understanding Customer Value Leadership

Customer Value Leadership is defined and measured by two macro-level categories: Customer Impact and Business Impact. These two sides work together to make customers feel valued and confident in their products' quality and long shelf life. This dual satisfaction translates into repeat purchases and a high lifetime of customer value.

Key Benchmarking Criteria

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Customer Impact and Business Impact—according to the criteria identified below.

Customer Impact

Criterion 1: Price/Performance Value
Requirement: Products or services offer the best value for the price, compared to similar offerings in the market.

Criterion 2: Customer Purchase Experience
Requirement: Customers feel they are buying the most optimal solution that addresses both their unique needs and their unique constraints.

Criterion 3: Customer Ownership Experience
Requirement: Customers are proud to own the company's product or service and have a positive experience throughout the life of the product or service.

Criterion 4: Customer Service Experience
Requirement: Customer service is accessible, fast, stress-free, and of high quality.

Criterion 5: Brand Equity
Requirement: Customers have a positive view of the brand and exhibit high brand loyalty.

Business Impact

Criterion 1: Financial Performance
Requirement: Overall financial performance is strong in terms of revenues, revenue growth, operating margin, and other key financial metrics.

Criterion 2: Customer Acquisition
Requirement: Customer-facing processes support the efficient and consistent acquisition of new customers, even as it enhances retention of current customers.

Criterion 3: Operational Efficiency
Requirement: Staff is able to perform assigned tasks productively, quickly, and to a high quality standard.

Criterion 4: Growth Potential
Requirements: Customer focus strengthens brand, reinforces customer loyalty, and enhances growth potential.

Criterion 5: Human Capital
Requirement: Company culture is characterized by a strong commitment to quality and customers, which in turn enhances employee morale and retention.

Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate Award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP		OBJECTIVE	KEY ACTIVITIES	OUTPUT
1	**Monitor, target, and screen**	Identify Award recipient candidates from around the globe	• Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies	Pipeline of candidates who potentially meet all bestpractice criteria
2	**Perform 360-degree research**	Perform comprehensive, 360-degree research on all candidates in the pipeline	• Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice criteria • Rank all candidates	Matrix positioning of all candidates' performance relative to one another
3	**Invite thought leadership in best practices**	Perform in-depth examination of all candidates	• Confirm best-practice criteria • Examine eligibility of all candidates • Identify any information gaps	Detailed profiles of all ranked candidates
4	**Initiate research director review**	Conduct an unbiased evaluation of all candidate profiles	• Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles	Final prioritization of all eligible candidates and companion best-practice positioning paper
5	**Assemble panel of industry experts**	Present findings to an expert panel of industry thought leaders	• Share findings • Strengthen cases for candidate eligibility • Prioritize candidates	Refined list of prioritized Award candidates
6	**Conduct global industry review**	Build consensus on Award candidates' eligibility	• Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates	Final list of eligible Award candidates, representing success stories worldwide
7	**Perform quality check**	Develop official Award consideration materials	• Perform final performance benchmarking activities • Write nominations • Perform quality review	High-quality, accurate, and creative presentation of nominees' successes
8	**Reconnect with panel of industry experts**	Finalize the selection of the best-practice Award recipient	• Review analysis with panel • Build consensus • Select recipient	Decision on which company performs best against all best-practice criteria
9	**Communicate recognition**	Inform Award recipient of Award recognition	• Present Award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10	**Take strategic action**	Upon licensing, company is able to share Award news with stakeholders and customers	• Coordinate media outreach • Design a marketing plan • Assess Award's role in future strategic planning	Widespread awareness of recipient's Award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies.

Too often companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses.

The integration of these research disciplines into the 360- degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages more than 50 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on six continents. To join our Growth Partnership, please visit **http://www.frost.com.**

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