

Agenda Item 18: APPU EC Forum on Innovation of Postal Network: Draft Report

Organisation of Forum

The Forum was convened on Thursday, 5 September. It was organised and moderated by Mr Gary Carroll, Managing Director, Asia Pacific Post.

The format of the meeting was as follows.

1. Opening remarks by the Moderator (Gary Carroll).
2. Scene -setting presentations from
 - (i) Mr Masahiko Metoki, Japan Post - "Innovations for Future Postal Networks"
 - (ii) Ms Li Yan, China Post Group – "Innovative Development of China Post Networks"
 - (iii) Carl Schelfhaut, Deutsche Post – "Innovation and Innovation Management at Deutsche Post DHL Group"
 - (iv) Hon. Richard-Khyde Menke, Nauru Post – "Innovation of Postal Networks"
 - (v) Mr Lee Hon Chew, Singapore Post – "Future of Post"
3. Panel Discussion involving the five presenters under the guidance of the Moderator.

This report provides key comments from each of the presentations as well as a summary of questions and responses in the Panel Discussion.

Opening remarks by the Moderator

This was a snapshot of innovation and the environment in which it will operate in the next 5-15 years.

Challenges

- Growth of online shopping
- Coverage of smartphones and other communication technologies
- Artificial intelligence and robotics
- Increasing urbanisation
- The development of the middle classes in the emerging markets in the large ASEAN sphere
- Ageing population

Demographics

- Extreme poverty to be eradicated
- Sub-Saharan Africa will see the largest growth in education
- Financial inclusion – money transfers, mobile banks – will help grow the middle classes
- Cheaper videocoms will people access to all kinds of services
- Urbanisation will continue and rural inhabitants will reduce

Technology

- Smaller, more powerful devices
- Access to healthcare, entertainment, etc, enabling citizens to manage their lives with reduced interpersonal contact and in real-time

Managing last-mile delivery

- Low-density rural areas will still be expensive
- Urban areas will want faster, quicker, cheaper, more flexible services

Shift in industry leadership

- Alibaba will dominate worldwide online sales, Amazon will surpass Walmart
- The combined businesses of Japan, China, Indonesia, Korea will be bigger than that of Europe, the Middle East and the USA combined
- Middle classes of ASEAN countries will be the engine of world economic growth

- 80% of all parcels go to just 20 countries
- Future for Post is in mobile innovation

- What will success look like? – how will we know how and what to integrate? - how will we know what products to develop or phase out? – where products need to be sold, and how to sell them?
- How do we deal with the world's ageing population? – this will be a phenomenon such as we have never seen before

Mr Masahiko Metoki, Japan Post - “Innovations for Future Postal Networks”

Innovation refers to a change in one of these technologies:

- engineering and manufacturing - to encompass a range of marketing, investment, and managerial processes
 - engineering - for higher operational efficiency
 - managerial processes - for new roles of the Postal Network

Socioeconomic Changes and Innovations

- Advent of Aging Population - comprehensive daily life support services (Mimamori)
- Progress of ICT - introducing new engineering methods
- Advance of Internationalisation - travel support for overseas tourists

Mimamori

- Watch-over Services – where a post office employee visits the homes of elderly persons monthly, checks their current living situation, and reports to a designated family member or local authorities
- Clients and families can also use 24/7 telephone health consultations.
- Local governments use Mimamori services as part of their welfare services or as part of their administrative services in return for Furusato tax payments.

Travel support for overseas tourists

- Rapid growth of overseas tourists 10 million (2013) ⇒ 31 million(2018)
- Services include:
 - Coordinating accommodation and transportation for tourists’ preferred route
 - Providing a Wi-Fi device and an original tour guidebook
 - Providing tourist site information and novelty goods at local post offices
 - Assistance for tourists in an emergency
 - General assistance for tourists - various kinds of support at post offices if they encounter problems while travelling.

Summary and Conclusion

Japan Post is developing these new roles for the postal network and exploring other opportunities for new socioeconomic changes. Promotion of these kinds of initiatives in the APPU/UPU member countries can be supported by UPU projects utilising Japan’s voluntary contribution.

Ms Li Yan, China Post Group – “Innovative Development of China Post Networks”

Innovation - Transportation Network

- Air network

→ Hub: Nanjing → Connected with 483 delivery areas → 31 airplanes → 35 air routes → Over 350 domestic and international flights per week

- Land network

→ Reform on trunk transportation → Integrated postal network and express network → Train transport for line haul → Automobile transport for short-to-medium haul → 85 Interprovincial processing centres

- Main channel for cross-border e-commerce

→ Delivered to 174 ports worldwide through 912 international airmail sectors from 67 postal ports in China → Postal Freight Dedicated Line: Shanghai-Osaka, Fuzhou-Taipei, Nanjing-New York, Hangzhou-New Siberia, Harbin-Yekaterinburg, etc.

→ Railway Transportation: Open postal routes of China Railway Express to 23 European Countries → 12 warehouses have been established in 8 countries and regions

How to face the challenges and seize the opportunities

- Win customers through innovative products and services
- Outdo competitors through innovative methods of increasing efficiency and reducing cost
- Lead industries through innovative best practice

Innovation

- Something that did not exist in the past in China Post
- Methods that change our traditional way of doing things
- Tools that help us enhance productivity and competitiveness

Innovation in Post Office Network

- “Internet+Governmental Services”
 - tax payment
 - traffic management services
 - lottery sales
 - other payment collection services
- Rural e-commerce
 - Ule.com, ULE shops and Ule system for shopkeeper
- Form integrated logistics solutions for cross-border e-commerce

Sci-Tech Innovation

- New technology application
- Intelligent post box
- Double layer sorters
- Small packet sorters
- Big and small packet sorters
- Matrix sorting system

- Single / double layer sorting system
- Unmanned Aerial Vehicle(UVA)
- Unmanned Vehicle Renderings
- Intelligent parcel lockers

R&D Centers

- China Post Technology Company: automatic, intelligent logistic equipment
- China Post Science Research and Planning Institute: industry research
- China Post Information Science Company: cloud computing, big data, IOT

Innovation Labs

- Labs for IOT, logistic equipment, green package

Grass-root Innovation

- Create platform to encourage grass-root staff to engage in innovation
- Reward those staff who made achievements in sci-tech innovation
- Make innovation a company culture

Carl Schelfhaut, Deutsche Post – “Innovation and Innovation Management at Deutsche Post DHL Group”

Transformation through technology and automation

- More efficiency
- New, data-driven business models

Innovations – new technologies and digitization are part of our strategy

- Sorting technology and delivery optimization
- E-mobility in delivery (StreetScooter)
- Collaborative robots (humans and robots working side-by-side in warehousing and beyond)
- Augmented reality (vision picking/ smart glasses increasing efficiency significantly)
- Supply Chain visibility

Innovations – future of last mile delivery

- Drones
- Robotic carts
- Electric vehicles

Innovation management – key tasks and processes

- Analysis
- Evaluation
- Prototyping
- Piloting/launch
- State of the art knowledge transfer
- Patent management

What it takes – technology exploitation and business exploration require also a specific culture and capabilities

- Technology exploitation
 - better customer experience
 - more efficient processes
- Business exploration
 - new business models
 - new ideas/disruption
- Culture and capabilities – focused, agile and empowering
 - what it takes – culture and capabilities
- Three DHL Innovation Centres in Europe, Asia and Americas

Wrap-up some simple conclusions

- The postal (logistics) industry faces huge threats and opportunities → technological and social innovations are key to survival and sustainable success
- When it comes to innovation and active innovation management the size of a company does not really matter → a large resp. a small organization comes with benefits and disadvantages
- Active innovation management is not an isolated activity → corporate values and leadership spirit make a big difference and shape the way a company develops and implements innovation

- Innovation management can be enhanced by providing adequate resources and by establishing the right structures and processes → at the end though it is a question of corporate culture
- Creating the proper cultural conditions is a top management challenge → empowerment, risk taking and tolerance for failure are crucial elements

Hon. Richard-Khyde Menke, Nauru Post – “Innovation of Postal Networks”

Innovation : Post Offices and Delivery Staff

- Post Offices have become sales points and Postmasters have become store managers
- Delivery staff are using/trialling environmentally sound delivery vehicles

Innovation : Delivery Channels

- Parcels are the core focus of network developments:

Logistic Partnerships

- Posts are refining their logistics and warehousing capabilities and aligning their services with the needs of their major customers

Delivery and Collection

- Posts are aligning their delivery practices to meet the needs of the recipients with customers invited to signal their preferred delivery option
- Posts are experimenting with new modes of delivery including drones and robots

Cross Border Directions

- The UPU is working to enhance cross border deliveries in the digital age through its e-commerce initiative ECOMPRO:

What does the future hold?

- The significance of Blockchain developments for IFS and postal financial services generally leading to possible new applications
- We need to explore together the opportunities and the challenges that lie ahead
- We need to move faster and to avoid the pitfalls of stalling rather than moving ahead
- Lessons learnt are that our services might be overtaken before we recognise the alternatives and the speed at which our competitors might move
- The need continues to exist for cooperation and sharing of solutions to enhance the global postal network

What can Nauru contribute?

- With Nauru’s limited resources we can only offer to move to meet your needs, but we do need your support in this
- The world that lies ahead is challenging and we are not threatened by this, but to meet the challenges we cannot do this alone nor will the future needed innovations be of our making
- All I ask is that you understand our position and that Nauru Post is ready and willing to work with you on “innovation of postal networks”

Mr Lee Hon Chew, Singapore Post – “Future of Post”

- Challenges in e-Commerce Deliveries
 - Largely doorstep delivery - too big for letterbox
 - Customers want low cost mail price with full parcel courier service
 - Seasonal spikes in e-Commerce
- Business Performance
 - Labour intensive for doorstep deliveries
 - Negative margin for doorstep deliveries with mail pricing
- Ongoing challenges
 - Unsustainable high dependency of labour; aging postal crew
 - Adverse impact on operational productivity, efficiency and cost with increasing e-Commerce delivery volumes
- Customer Expectations
 - Convenience is king! (Need to be at every block!)
 - Followed by precision, notification, trackability and traceability
 - Vast majority of e-Commerce deliveries at “shoe box sized”
- Today’s letterboxes require innovative thinking to overcome cost problems

What are the wants driving the need for innovation?

- Singapore Post
 - Security
 - Less traffic congestion
 - Meet Service Level
 - Less labour dependency
 - Space efficient solution
 - Smart Nation Initiatives to improve quality of life
- Service providers
 - Avoid door-step delivery to keep costs low
 - Deliver anytime to anywhere
 - No need coordination with receiver for delivery
 - Status of delivery
 - Increase productivity
- Customers
 - Pick up near door-step
 - Pick up at anytime
 - Notifications for pick up
 - Receive anything ordered online or offline
 - Receive and send items
 - Standardised access method

“How do we re-imagine the future of post and parcel in Singapore?”

- Future of Post Concept
 - **Automate** and be less labour intensive = **Security** due to consistent delivery protocols
 - **Track and trace** capability for all mail and packets = **Assurance** through real-time parcel visibility
 - To collect all sizes of items from a **single point** = **Convenience** to consumer
- Development of the Postal Station
- Next generation letterbox (Smart Letterbox + Smart Locker)
- Develop and implement the new National Delivery System

What Happens Next?

- Prototype of Postal Station will be launched in late Sep 2019
- Roll Out Plan – over next 4 to 5 years
- Update in next APPU meeting on the progress

Panel Discussion

Question 1 – Moderator: What one opportunity our industry faces excites you the most?

Deutsche Post – in the domestic service, it is the quality of the service we deliver – hard and soft (type) innovations. For cross-border services, it is last-mile delivery (because that is where most of the problems are).

Singapore – Posts, all round, are thinking about how to innovate for the future – this infers that Post is not a “sunset” industry – we are all thinking hard to solve the problems that our customers want us to solve.

Japan – using the postal network to meet social responsibilities, particularly in view of the ageing population

China – China is the second largest economy in the world, but it is still a developing country. Urbanisation will make a huge demand on the postal network, the postal business – in both rural and new urban situations.

Nauru – e-commerce is the key opportunity for Post and for Nauru customers – giving them the opportunity to buy and sell online.

Question 2 – directed to Deutsche Post (identity of person asking question not known) – how do you segment your innovation ideas to ensure they fit all the areas where you operate (bearing in mind that in the Deutsche Post business you cut across different cultures, different customer expectations)? How do you segment your service offerings to make sure they meet the expectations of all the different customer groupings?

Deutsche Post – it is not easy – we have mail and we have e-commerce, then express, subdivided into documents and merchandise, then warehouse logistics, and then global forwarding (sea freight and air freight).

What we do is we look at what we can develop coherently, efficiently, and in what culture a solution might fit best. We ask ourselves into which industry sector would it be appropriate to “invest” a particular innovation. Evaluation can include considerations of technology, culture, social aspects, as well as the soft features such as artificial intelligence. As an example, we have a department / division that does nothing other than promoting start-ups in innovation – one of those is going to be piloted in Thailand – an interface that enables a customer to follow, step-by-step, where everything is. Another example – Germany – on your mobile phone to do all your postal transactions including buying stamps where you get a code, put the code on the letter, and send it on its way.

Singapore – how do you prioritise the things that are challenging you? – we have different departments trying to develop different ideas and concepts – but then we come together to find options that are available already in the market and put them together as part of a whole ecosystem.

Question 3 - Macau, China: – issue can be one of scale – that is to say that once an idea is researched, the actual volume of business involved is not significant enough to warrant investment in an innovation. How do you approach this type of issue i.e., where the idea is bigger than the opportunity?

(The Moderator added to the question i.e., “how do we manage and measure the process of innovation? – how do we think about the small financial benefit from some innovations?”)

China – a postal company can foster the culture of inclusiveness to see the value of innovation in its own right. Innovation does not have a benefit that is only related to successful initiatives. It is important that a business keeps looking for new ways to do things – there will be failures. The power of innovation is that it is a culture that does not accept the status quo; rather, it is a culture that seeks answers to problems, or solutions for opportunities, where in previous operating environments we may have just shrugged our shoulder and done nothing.

Nauru – due to our size and resource limitations, we need to be selective in what innovations and opportunities we pursue. We have some reliance on bigger neighbours (e.g., Australia Post) in terms of methods and opportunities they advise / recommend for us to adopt.

Japan – sometimes the benefit is in the practical way we seek to get best value from innovations. Our company is very big, so it is difficult to get a new idea to work in our business. We invite staff to share their know-how and their new ideas with the business, and also involve the start-up entities in the process as a way of getting external perspectives. This means that we do not have to take on all the innovation ourselves, we can take a collaborative approach with partners and like-minded parties.

Singapore – the point is that not every innovation works. Not every innovation has an immediate ROI. Part of the benefit is the cultural shift in an organisation to seek answers, to look at options. Parcel lockers in Singapore – started in 2000, but it failed, no-one was interested in taking up the service. However, parcel lockers are now part of our service offering – but the strategy has changed – whereas in 2000 it was a plan to increase revenue, now the parcel locker is a defensive option to protect our business.

One of our problems is that between the members of APPU we have so many ideas and innovations, so much knowledge and experience – of successes and of failures – we don’t share enough of our activities and outcomes for the benefit of all.

Question 4 – Moderator: question for Deutsche Post – do European Posts share information on innovations?

Deutsche Post – there is a level of collaboration. But, firstly, additional comment regarding **Question 3** from Macau, China. Not all innovations work – for example, we introduced parcel-boxes at the residential delivery-point, but it failed. We stopped it. No idea why it didn’t work, it just didn’t.

To **Question 4** - yes, Europe collaborates but perhaps not to the extent that it should.

May I digress and put an idea to the meeting - why don't we look at innovating in the CN 38 exchanges (where the hard-copy document is used) – there's two good reasons for doing that – it is a good sustainability practice, plus it will cut out a lot of invisibility between the point of departure and the end delivery. We now work with so many partners – PRIME, IPC Connect, etc – one single system would simplify a whole host of processes and enhance our ability to compete.

Nauru – remember that as bigger and better resourced postal businesses move ahead in terms of equipment and systems, what you leave behind (i.e., do not use any more), still has a value for smaller, less resourced postal businesses.

Question 5 – PAPU: a global position on innovation – ageing population – in Africa the problem is in reverse i.e., growth in young population. Therefore, we need to be mindful of the real need in a given region because innovation, just for the sake of innovation, can be a bad thing. When you introduce innovation – technological innovation – to increase productivity, is there not another consequence for job numbers and unemployment? In a climate where there are so many young people trying to enter the work force, they need jobs to be retained and created, not taken away through productivity innovations. Can innovation provide more jobs? – more opportunity for the growing populations? And, in Africa, we are facing some critical issues in which innovation might be dangerous – privacy issues, financing terrorism, money-laundering, scams – our first interest is socio-economic inclusion, not just running for innovation like the former arms-race. We need useful innovation.

Question 6 – PAPU: is there another need for innovation regarding the behaviour of the workers, of the stakeholders, of internal organisations, of market organisations – in some respects, this question is also about the legal framework? Apart from innovating to improve productivity, is someone also looking at innovation for how the market is organised, how fair is the competition, how secure is what is being provided to the population?

The Moderator split the questions between the panellists. **Question 5** – demographics in other regions – population growth and innovation – how can this be dealt with?

Japan – we seriously suffer from a shortage of labour. In cases where there is excess labour the focus has to go on increasing the demand for labour, increasing the needs and wants of customers. In general, innovation seeks to increase effectiveness.

PAPU mentioned other important factors – inclusiveness. Innovation is a necessary tool to remove exclusion, not only financial but also access to postal services – such actions should increase the demand for labour.

Singapore – one of the challenges is “how do recruit postmen”? – the role is not seen as being very exciting or very interesting. And, as we look at the future of Post, we need to look at the role of the postman. If a postman goes to a Postal Station, the role is not just delivery. The role is also to do simple IT maintenance and other tasks that result in upskilling the individual. So, the role is no longer a postman, it could be a “happiness ambassador” e.g., he brings e-commerce items to residents. We need to look at opportunities for upskilling.

Innovation needs to be carried out in the context of the business environment. In Africa, perhaps the emphasis for innovation is initiatives that create more employment for young people.

Moderator – Question 6 (rephrased as – **culture – how do we think about innovation around cultural challenges, and what innovation projects are we tackling that look at how we develop culture in our organisation?**)

China – firstly a comment on **Question 5** – in China, we are still facing the same sort of problem as described by PAPU – we have the ageing population, we have rural people staying in their villages, whereas we need people in the urban areas. What Post can do is to think about our customer – what are the customer needs? – in the rural area we might provide more opportunities of convenience for customers to shop, to sell, to start their own businesses within their villages. In urban areas we still face the ageing problem and we need to provide more convenient services for communities.

For **Question 6** - innovation in culture – we need our top management, our leaders, to first have a commitment to innovation and inclusiveness – because these are the people who lead the teams to the future. Then we need to take action in our organisation to provide channels / platforms to encourage our grass-root employees to be involved in the innovation.

Deutsche Post – on **Question 5**, we have a department that is called “Incubations” – and this department has the research and development under its control along with start-ups. Research requires many people, development requires many people, maintenance requires many people. So, automatically, the more R&D you have, the more jobs you create.

To **Question 6** – I picked up security and data protection – or privacy protection. Culture – innovation can be a destroyer of culture e.g., in the development of apps and similar tools, our social interaction is changing, our direct, personal communication is decreasing – so innovation can take us down a socially negative path if we are not careful. Innovation needs to be focused, efficient and effective, taking all the cultural elements into account.

Nauru – the big fear from innovation in Nauru is the replacement of jobs by other means e.g., robots, drones, etc. Innovation needs to be selective based on a range of needs, including cultural and social. It needs to relate to efficiency, transparency, and enabling the customer to trust our business. Trust is a key element in retention and growth of business.

Question 7 – Slovenia: a question for China – the European Union, next year, will remove the duty-free limit of 22 Euros. What are the efforts, proposals, ideas for China Post as the biggest generator mail into the EU in this regard.

Question 8 – Slovenia: a question for Japan - in terms of the difference between developed and least-developed postal operators, how can Japan Post, from an innovation perspective, help least developed countries to overcome the gap that exists (between developed and least developed).

Japan – we understand the gap between developed and developing countries. There can be limitations on what can be done to help through innovation – however, through the focus on the new social role of the postal network that we are developing, as well as our involvement in the Disaster

Risk Management area, Japan Post and the government of Japan are pleased to provide assistance bilaterally and also through the UPU to least developed countries.

Nauru – regarding **Question 7**, we are looking at making it easier to send goods into the country from a tax perspective because our objective is to promote the business private sector.

China – re **Question 7**, the European market is one of the most important for China. What we need to do now is to make the services we provide more competitive in the market with the cooperation of the other postal operators.

Singapore – on **Question 8** – there are opportunities to help least developed countries and I guess it is not so well promoted regarding items that are surplus to requirements such as computers, furniture, that can be re-purposed by countries with a need for them. Perhaps we can take this up as an APPU project to help one another in the region and find some way of announcing the availability of surplus items.

On **Question 7** – a lot of this has to do with the merchants and enabling them to manage the payment of tax for the transaction with the destination tax authority. If this is not possible then the problem falls on the destination Post.

Deutsche Post – on **Question 7**, New Zealand will be applying a new tax regime from 1 December 2019. Sweden is already doing it. What I expect is a very sharp decline, at the beginning, of the B2C business – but China is already prepared – they have 11 warehouses across the globe already, so product can enter destination markets directly or via hubs, it can stay there in a bonded area, and once the order comes in, it can go from the warehouse to the addressee – and then it becomes a B2C item as a domestic mailing. In the long run it should not affect the volumes going out of China. It might, still, to a certain extent, affect the local retailers in origin-of-goods countries. In Sweden and the UK when the duty-free tax was removed, there was a sharp decline in traffic at the beginning and then the volumes gradually came up again. China and Alibaba, and all the others, they are prepared.