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# Designing Public Services

User-Centric Design Pilot Project
MONG KOK POST OFFICE \*\*\*





#### Hong Kong Design Centre

The Hong Kong Design Centre is a non-profit organization dedicated to helping local designers and businesses to realize their full potential. Our mission is to use design and innovation to drive value creation and improve the well-being of society. Our vision is to establish Hong Kong as a centre of design excellence in Asia.

The Hong Kong Design Centre was established in 2001 by the Hong Kong Federation of Design Associations, the founding members of which are Hong Kong Designers Association, Hong Kong Interior Design Association, Hong Kong Fashion Designers Association, and the Chartered Society of Designers Hong Kong. Our principal financial supporter is the Hong Kong Special Administrative Region (HKSAR) Government.

# Hongkong Post User-Centric Design Pilot Project

BEE MONG KOK POST OFFICE

#### Foreword by Hong Kong Design Centre



Design brings value to society through the development of strategic, practical and effective solutions across all aspects of work and life. Whether it's raising profits, building a brand or making everyday life easier, designers, who are natural innovators, focus on what users want and ensure that the solutions deployed would satisfy their needs.

As public services face pressing challenges in the 21st century – not least of all an ever more competitive business environment – design has proved to be the missing link to increased efficiency and enhanced customer and staff experiences. In August 2009, Hongkong Post appointed Hong Kong Design Centre (HKDC) to manage the User-Centric Design Pilot Proj-

ect. The first phase of the initiative entailed research into how the user-centric design approach can be applied to the Mong Kok Post Office. The second phase, commenced in November 2010 saw the implementation of the research findings and new designs. The project was completed in November 2011.

A series of changes were introduced. Customers now have more space for packing parcels, and waiting time for service has been reduced through clearer queue-demarcations, signage directions and service window displays. Access for people with disabilities was incorporated, while ergonomic designs were developed to build a better working environment. One of the salient challenges was to "create" space to improve users' comfort and operational efficiency within the confined floor space of about 405 sq m. In addition, the staff were required to carry out business as usual and offer full postal services during the renovation.

To measure the deliverable effectiveness of the project, an independent, third party body was engaged to assess users' feedbacks. All customers randomly interviewed agreed that services at the redesigned post office were more efficient, while more than 90 per cent believed the new design should be rolled out to other post offices. Staff members said they were now happier at work, amid a more comfortable working environment and having fewer safety concerns.

HKDC would like to express its gratitude to Hongkong Post and other partners for their support. They include the Efficiency Unit of the HKSAR Government, Kaizor Innovation (user-centric research study), ADO Design & Public Art Consultants (HK) Limited, Innovative Design Group, and the City University of Hong Kong's School of Continuing and Professional Education (SCOPE). HKDC would also like to thank the Project Steering Committee for its energetic deliberations.

The project highlights HKDC's commitment to promoting design as a means to inspire creative and innovative ideas to transform business and improve public service delivery. We hope the possible roll-out of the design experience and parameters from the project would benefit the local design industry and present the Government with opportunities to deploy to other Government Services.

Dr. Edmund Lee

Executive Director, Hong Kong Design Centre

#### Message from the Postmaster General



The refreshing design of Mong Kok Post Office after its recent renovation is well received among Hongkong Post customers and staff, the general public as well as design professionals. The refurbishment entails more than a facelift of this branch office which has stood at its present location for almost twenty years. The exercise allows us an opportunity to transform service provision through design innovation that is sharply focussed on responding to users' needs. What we get upon completion of the renovation project is not just an aesthetically pleasing interior, but one that delivers improved customer experience, engenders a stronger sense of belonging among staff and offers scope for

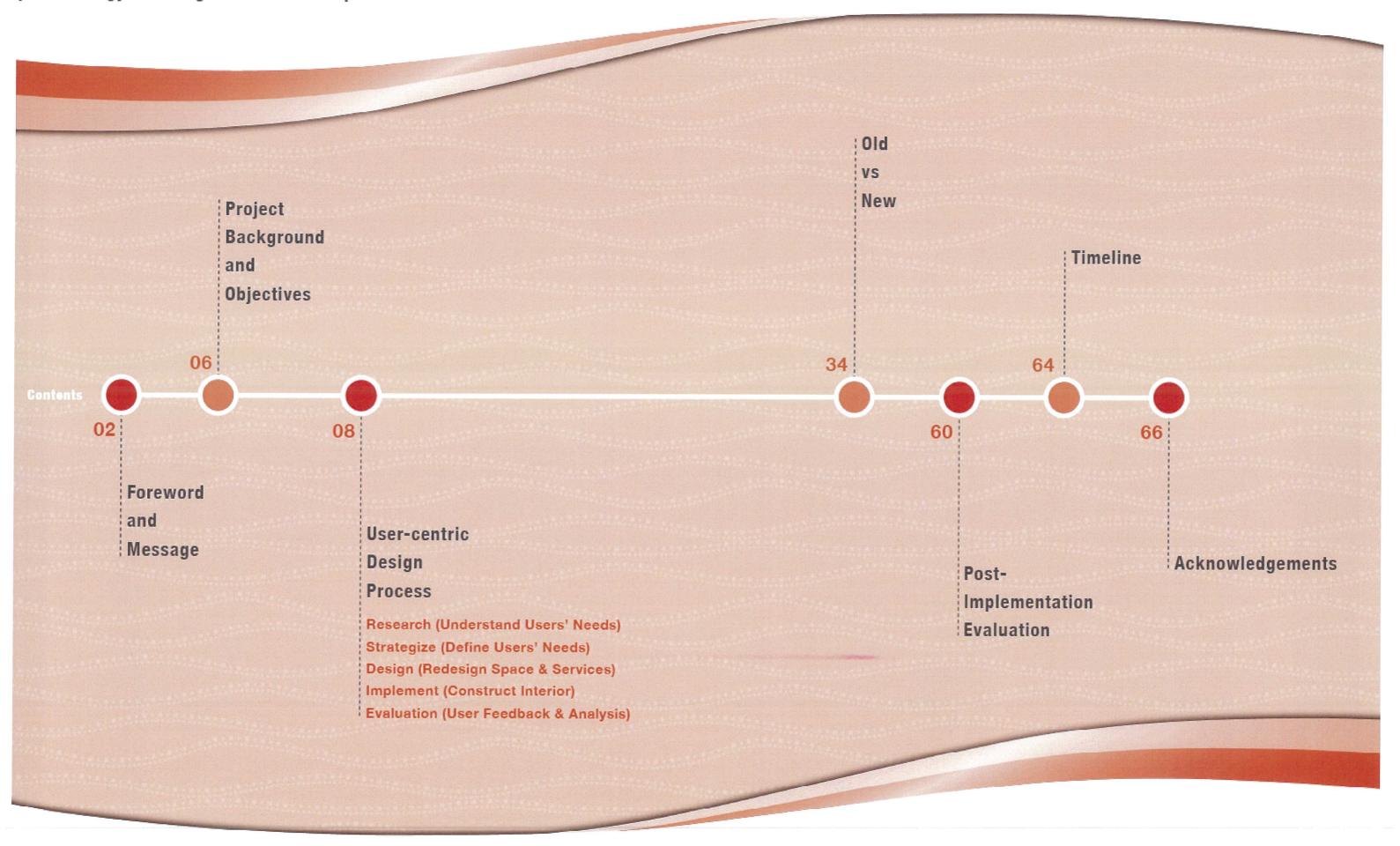
new business initiatives. The project is a remarkable endeavour for the diversity of additional values, both tangible and intangible, it creates.

The renovation project owes its success to a collaborative process that invites the participation of users of the space to be renovated. This means both our customers and our staff working on the premises. A shift in perspective is at work here: whereas conventionally we measure service quality in terms of efficiency and meeting targets, in this project we place a premium on the interaction between customers and the service providers. Through tapping direct feedback from users and systematic observation of user behaviour by the design team, an innovative, experienced-based design solution took shape to meet articulated needs. Service quality has been refined to embrace also the service environment and users' experience of the service encounters.

Hongkong Post prides itself on providing quality customer service. By enhancing ease of access to our services in ways more than one, the user-driven design pioneered in our Mong Kok Post Office enables us to take our service culture to a new level. We are delighted to have worked in partnership with Efficiency Unit, Hong Kong Design Centre and the design team at ADO Design & Public Art Consultants (HK) Limited on this trailblazing project. In an era when customers demand more responsive service provision, Hongkong Post will strive to meet the challenge by understanding the needs of the people we serve and surpassing their expectations.

Thing

Mrs Jessie Ting Postmaster General



The Hongkong Post User-Centric Design Pilot Project was a collaborative effor between Hongkong Post (HKP) and Hong Kong Design Centre (HKDC). To mee changing postal service environment, Hongkong Post had invited Hong Kong D Centre as the Program Manager to help redesign and improve the layout of one busiest post offices, the Mong Kok Post Office, by adopting the user-centric des research approach with the aim to improve its overall operational efficiency and r the needs of customers of postal services in the 21st century. This project was in **Project Background and Objectives** mented in two phases. Phase 1, involving a user-centric research study by Kaizor Innovation, commenced in August 2009. Phase II, the design and renovation stage commenced in November 2010 and was completed in November 2011. E 角郵政局 Mong Kok Post Of



User-centric Design Process



RESEARCH - UNDERSTAND USERS' NEEDS



STRATEGIZE - DEFINE USERS' NEEDS



DESIGN - REDESIGN SPACE & SERVICES



IMPLEMENT - CONSTRUCT INTERIOR



EVALUATION - USER FEEDBACK & ANALYSIS



# i. Purpose of the User-Centric Design Approach

The factor underlying the user-centric design approach is "the best-designed products and services that result from understanding the needs of the people who will use them". Therefore, the user-centric design approach engages users throughout the project, from clarification of project objectives to prototyping and output evaluation. The overall purpose of the user-centric design approach is to "represent the full range of user needs". The focus is to cover as many different types of users as possible. A good understanding of the users' needs can improve delivery of service quality to customers, improvement of staff's working environment and overall operational efficiency.

# ii. Kick-off workshops and seminars

A kick-off seminar was conducted with 50 staff at different levels of Hongkong Post, including Mr. Chan Yau Fung, Acting Postmaster General of Hongkong Post, Mr. Allan Chiang, Executive Director of Hong Kong Design Centre and Ms. Elaine Ann, Founder of Kaizor Innovation.

 Black, A. (20 October 2008) "User-Centred Design: The Basics of User-Centred Design", http://www.designcouncil.org. uk/About-Design/Design-Techniques/User-centred design-/ (accessed 11 Oct 2009)Ibid. The seminar included an interactive discussion between the senior management of HKP, branch managers and staff from both Mong Kok Post Office and Tsim Sha Tsui Post Office to identify the needs of different users, goals and priority of this project, the objectives of the user-centric research and the selection criteria for target customers to be surveyed.















# iii. Observation of people, environment and facility

During the 3-week user research period, people, environment and facility in different post offices were observed. Even though the project focused on Mong Kok Post Office, the project team carried out research study also at the nearby Tsim Sha Tsui Post Office in order to gain a broader perspective of how business and personal needs differed according to the post office location. Besides, staff at Cheung Sha Wan Post Office, Sheung Wan Post Office, General Post Office, Kowloon City Post Office and International Mail Centre Post Office were visited.







#### iv. Interviews

The project team recorded user interviews and took pictures to keep a record of what they had observed at the scene. A total of 70 users, including 49 customers and 21 staff were observed and interviewed. The 49 customers included working individuals, housewives, philatelists, tourists, pre-paid account users, business users, internet traders, couriers, travelling businessmen, retirees, office assistants, etc. Besides that, 6 post office management executives, along with 15 post office operational staff were observed and interviewed.



# v. Define persona, brainstorming and mind mapping

Brainstorming sessions were conducted in the initial stage of this project to identify different types of user behaviours and to prioritize project objectives. It is a tool used to facilitate creative thinking in a group setting. In the brainstorming session, everyone was encouraged to think and imagine "outside the box" and speak spontaneously on a particular topic. The more ideas thus generated; the better the brainstorming session was conducted.

#### **Business Customers - Personas**



#### Non-Business Customers - Personas



At the data analysis stage, in addition to brainstorming, the project team also used personas and mind-mapping to explore users' needs. A mind-map is a visual thinking tool for representing ideas and concepts in a graphical way. While often used as part of the user-centric design research, personas are "fictional characters created to represent the different types of users within a targeted demographic that might use a site or product". Personas are useful for demonstrating different goals, behavior patterns and skills. The previous tables present the personas identified by the project team.

2 Wikipedia (2009) Persona (marketing)" http://en.wikipedia.org/wiki/Persona\_(marketing) (accessed 12 Nov 2009

# vi. Discussion with Efficiency Unit

One of the HKSAR Efficiency Unit's (EU) interests was to improve operational efficiencies of Government Departments. A meeting was held to discuss with EU on the HKP project proposal and objectives of the study. It was envisaged that such study findings could be useful and applicable to other government departments.







#### vii. Issues Discovered

#### Staff-related

- Retail business enhancement is needed
- Inflexible posting of counter signage
- Counters were too small to fit all kinds of equipment
- Customers throw rubbish onto the floor
- Not enough space to walk behind counters
- No space to place parcels (They were thus put on chairs or the floor)
- Counter top is too high (can't sit while working)
- Lack of ergonomic design for counters
- Specific counter is needed for internet traders, who need to post many parcels at each posting

#### **Customer-related**









- Inconspicuous entrance at street level
- Unclear signage for lift service
- Long queuing time
- Hard to locate relevant service counters due to unclear signage
- Hard to differentiate posting boxes
- Postal notices and messages scattered at various areas
- Unattractive display of posting stationery and philatelic products
- Inadequate parcel packing space
- Customers need to go back and forth to check packing box sizes for posting parcels and hard to decide which queue is for air-mail and express mail
- Customers bring their own packing tools, e.g. tape and scissors
- Inadequate writing area
- Inefficient use of limited floor space
- P.O. Boxes were poorly laid out
- Lack of facility for physically impaired customers



# i. User research debriefings

After the research period, several meetings were held, including internal debriefing sessions at HKDC, meetings with HKSAR Efficiency Unit and also the users research debriefing session with HKP's staff.







# ii. Design strategy workshops







Data generated from users' interviews revealed user experience, research insights and inspirations on redesign. During the design strategy workshop, the post office management team, staff and consultants underwent brainstorming, live sketching and co-creation exercise. Creative idea illustrations were also done in order to come up with appropriate design solutions acceptable to different users. Participants also discussed the business priorities of HKP, carried out role-play and visualized conceptual design. The results of the study in close collaboration with HKP's staff at all operational levels incorporating senior management business priorities and feedback from training workshops and customer feedbacks, etc. helped to establish essential design criteria. It is also important for participants to "buy-in" to the project for the future interior design firm to implement the new design. After the workshops, HKDC and Kaizor Innovation issued a design brief based on all data collected.



The following are some of the major design goals and process steps to carry out for the Mong Kok Post Office renovation project.

### i. Design goals

#### - Create a better customer experience

The aim is to reduce the frustration customers may experience in waiting in long queues and make post office services more accessible. Better signage design enables customers to readily know which queue to line up at; and through better space utilization to enhance staff and customers satisfaction and overall efficiency. In addition, posters (traditional/digital) are attractively displayed on the side walls above the entrance escalators to keep customers informed of products and services being offered.

#### - Create a better staff working environment

Improved staff workflow/space and storage space; the ergonomically improved work benches with the associated equipment were designed for staff comfort in serving customers, staff safety and ease of use during operations.

- Increase operational flexibility to cater for the changing customer demands of Postal Services

To provide modular and flexible counter design in meeting both current demand and future growth such as catering for more internet parcel postings, etc.

#### - Design a modern 21st century interior environment

The new Post Office design would most likely need to last for more than a decade, so it is important to design an outlook and interior functional capacity that could last well into the future. Aesthetics, color scheme and choice of materials should match HKP's brand identity. The design concepts should be adaptable/scalable for application by other post offices.

# ii. Identifying a capable design firm

Briefing sessions to potential design firms:

HKDC had invited qualified design firms to express interest in tendering for the project; vetting was based on the materials submitted by the design firms from which shortlisted firms were identified for the 2nd round tendering process by the vetting committee in accordance with the normal vetting procedures. The shortlisted design firms were then recommended to Hongkong Post on 24 Nov 2010 for vetting consideration.

# iii. Judging panel members

Dr. John Lo, Senior Consultant of Hong Kong Design Centre; Ms. Elaine Ann, CEO of Kaizor Innovation and Mr. Horace Pan, Chairman of Hong Kong Interior Design Association formed the judging panel for the 1st

round vetting.



Mr. Patrick Lin, Assistant Postmaster General (Postal), Chairman of Hongkong Post's study project; Dr. John Lo, Senior Consultant of Hong Kong Design Centre and Ms. Elaine Ann, CEO of Kaizor Innovation formed the judging panel for the 2nd round vetting.

# iv. Presentation and scoring assessment of all design firms

Below are the assessment criteria during the 2nd round of vetting

Criterion 1	Previous institutional project experience (Related experience in Government, public service and spatial design)
Criterion 2	Understanding of the requirements of HKP redesign project
Criterion 3	Team structure and capability to support the project
Criterion 4	Problem solving approach. Time and budget management
Criterion 5	Concept suitability and overall confidence in project management
Criterion 6	Work/Team dynamics

Based on the assessment criteria, the Judging Panel awarded the project contract to ADO Design and Public Arts Limited in January 2011

# v. Prototyping

Based on the study finding guidelines obtained from the User Research, various designs were proposed to the Steering Panel. An improved modular design mock-up counter was proposed, integrating many improvement suggestions from HKP's front-line staff, operations and management. Subsequently, two more mock-up counters were presented to the Steering Panel at the InnoCentre, Kowloon Tong.







# vi. Mock-up counter review

In order to further improve the workspace comfort and efficiency, feedbacks on the design of the mock up counter working space were collected from 7 staff representatives from the Mong Kok Post Office, and their suggestions were further integrated into the counter design.

#### a. Improvements on Ergonomics and Dimensions

Improvement Suggestions:	Purpose / Benefits:
Staff counter – larger top (1600W x 1600 L)	<ul> <li>More space and ergonomic considerations for processing mail/parcels</li> <li>More space for staff work comfort</li> <li>Better space allocation was provided for counter devices e.g. CPU, receipt printer, credit card machine, scanner, stationery, stamp books, coin tray, forms, etc.</li> </ul>
L-shape counter desk	- Ergonomic design to provide a productive and healthy working environment
Height of counter suitable for sitting and standing (700 – 800H)	Better ergonomics for staff work comfort
New chair suitable for sitting	Better ergonomics for staff work comfort

# b. Improvements on Ease of Use and Efficiency

Improvement Suggestions:	Purpose / Benefits:	
Wider workspace behind counter	- Better parcel flow to the back office - Better staff work comfort and ease of movement	
New small parcel indent feature (300W x 750 H)	- Ease of workflow for staff in handling large volume of small parcels for posting	
Integrated scale into small parcel indent	- Ease of weighing small parcels for posting	
New keyboard tray	- Appropriate height for ergonomics - Provide more counter top space - Hide away keyboard when needed	
New pull out desktop extensions on counter side	- Provide more counter space when needed	
Movable/ Adjustable receipt shelf	- Allow staff to adjust size according to their needs	

# c. Improvements on Operational Safety

Improvement Suggestions:	Purpose / Benefits:
- Large tempered counter glass (1130 W x 1300 H)	<ul> <li>Provide better visibility to customers while maintaining staff safety</li> </ul>
- Wider insert space below glass (1130 W x 150 H)	Provide larger insert space for the ease of small items     handling while maintaining staff safety
Small parcel indent	- Large enough to receive 2kg parcels while small enough to prevent intruder
Cash drawers  - Lockable large bills drawer  - Lockable cash tray drawer	<ul> <li>Large bills drawer repositioned as top drawer for easy access</li> <li>Staff no longer needs to bring the whole cash tray drawer back to the safe each time they leave the counter</li> </ul>
	Lockable cash tray drawer is large enough to accommodate stamp book

#### d. Improvements on Storage Space

Improvement Suggestions:
Two new trolleys installed
beneath packing table

Purpose / Benefits:

- Right below small parcel indent

 Wheeled trolleys to make it easier to move large amount of letters or large parcels around the post office

 Below right side of counter desk (400W x 800H)

Increased storage space below counter desk

- Allow staff to store more counter stationery / equipment

Added storage racks on upper right counter desk column

- Additional storage for convenient access

General storage drawers

- General storage drawers for staff's flexible use



# i. Briefing sessions to select qualified contractor

Invitations were sent out in May 2011 to potential fitting-out contractors to invite cost proposals. ADO, the appointed interior design firm was the curator and program manager responsible for overseeing and supervising the selected contractor to execute the design and renovation project at the Mong Kok Post Office and ensuring the Project to be implemented on time and within the project budget in accordance to the set criteria.





#### ii. Design constraints and factors under consideration

a. Keep post office operational during renovation

It was a requirement by Hongkong Post to keep Mong Kok Post Office operational during the renovation period. To meet this requirement, it was decided that the renovation could be carried out in 3 phases. Thus, during the construction stage, a total of 8 temporary counters were set up to meet the daily operational needs. Temporary entrances, exit and changing rooms were provided during renovation. A covered walkway for staff to use the dumb waiter, a spiral stair and a spiral chute were also provided. Both entrances via the elevator and the escalator could be used during construction phase 1, while the entrance via the escalator was temporarily closed for construction phase 2. The limited available space posed a challenge to both the postal operation and the contractor.

b. Avoid substantial structural modifications

Alternation to Mong Kok Post Office's exterior wall was minimized. Mong Kok Post Office is housed in a building that belongs to a third party property owner and hence minimal structural modification was imposed.

c. Barrier free access considered in the design

Appropriate Barrier Free Access (BFA) designs were implemented for the benefit of the physically disabled and elderly people.

d. Adhere to Post Office guidelines

Tagline Lockup Usage Guideline of Hongkong Post's corporate identity such as brand colour and fonts were implemented.











# **General Environment**

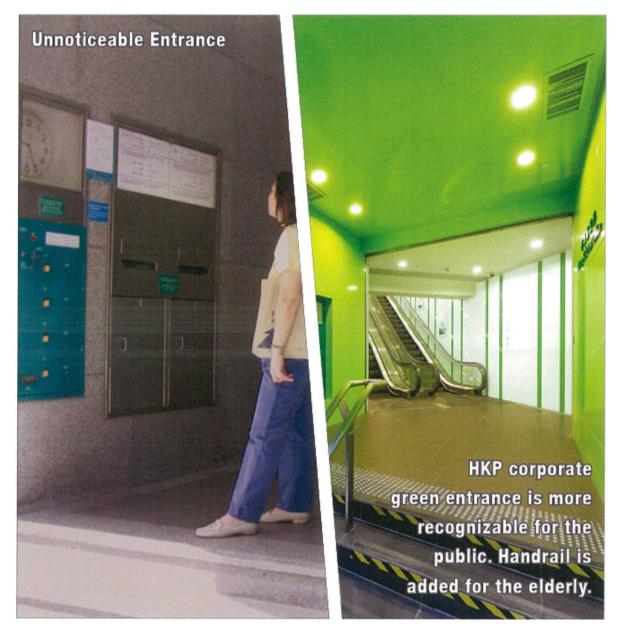


# Before:

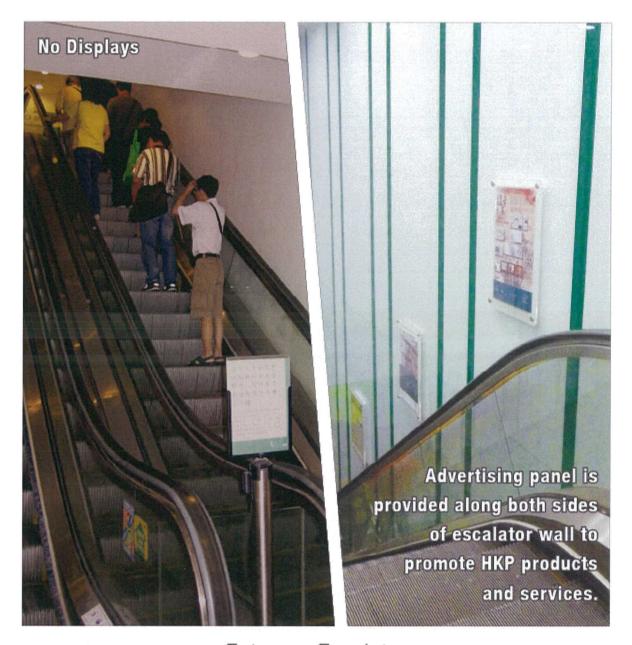
- No barrier free designs were incorporated

# Now:

- Signage with intensive colour contrast for colour impaired users
- Tactile strips for visually impaired users
- Low-level enquiry counter and writing table to facilitate wheelchair users



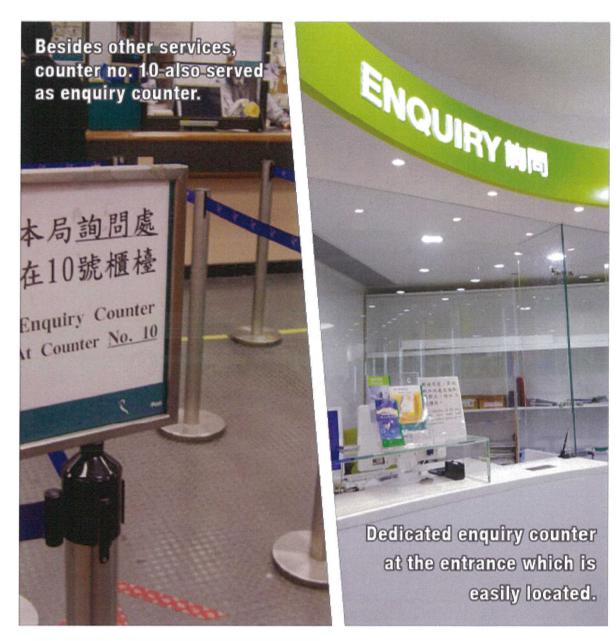
Street Level Main Entrance



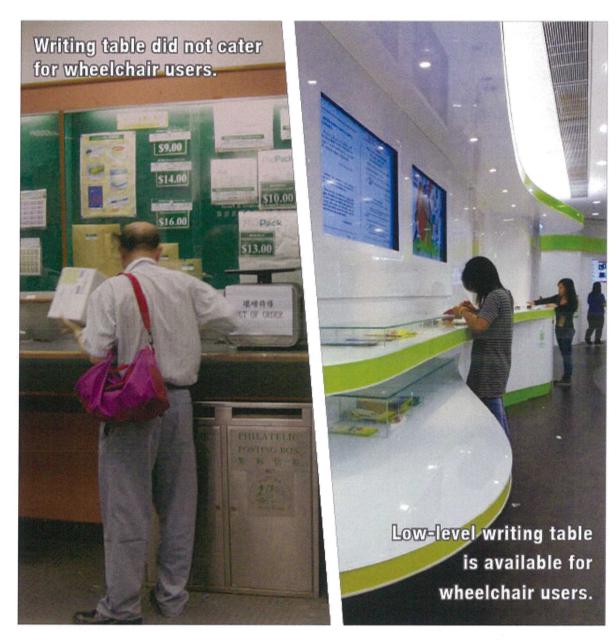
Entrance Escalator



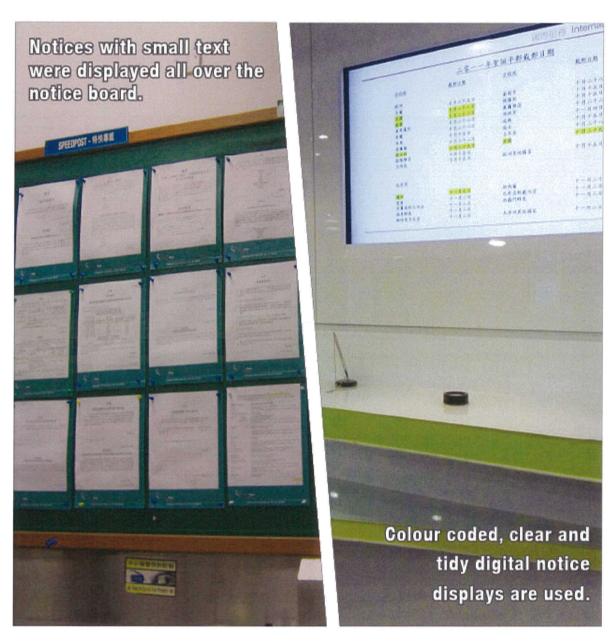
Lift Signage



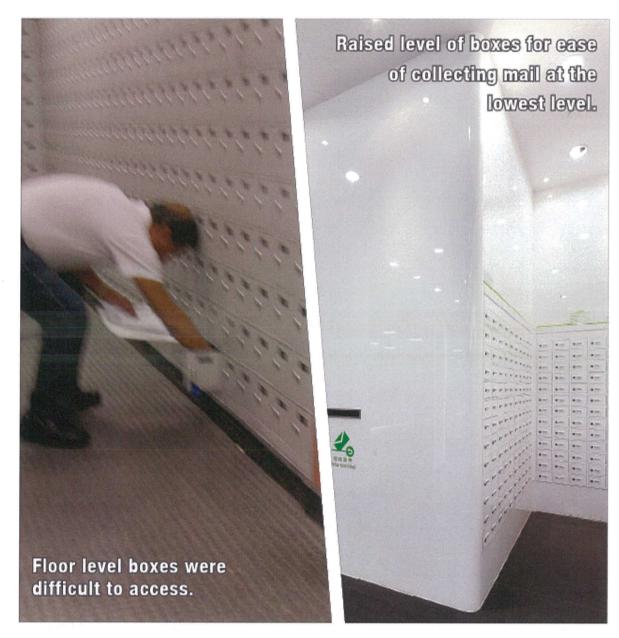
**Enquiry Counter** 



Writing Bench



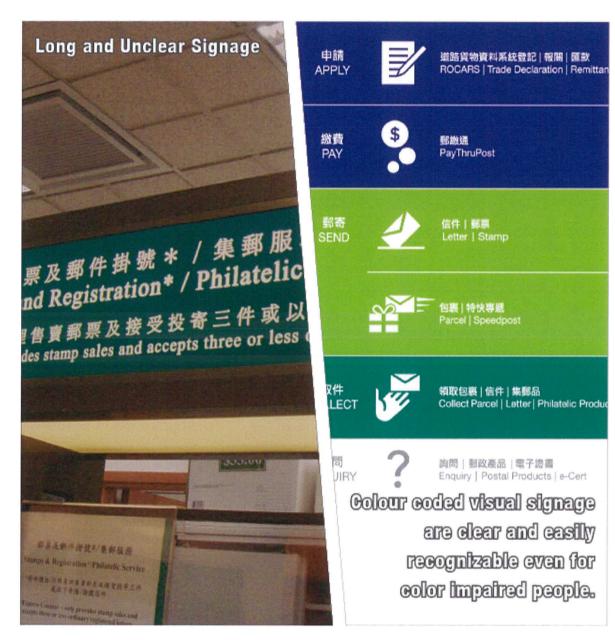
Notice and Message Board



P.O. Box Area



Retail Product Display



Counter Signage



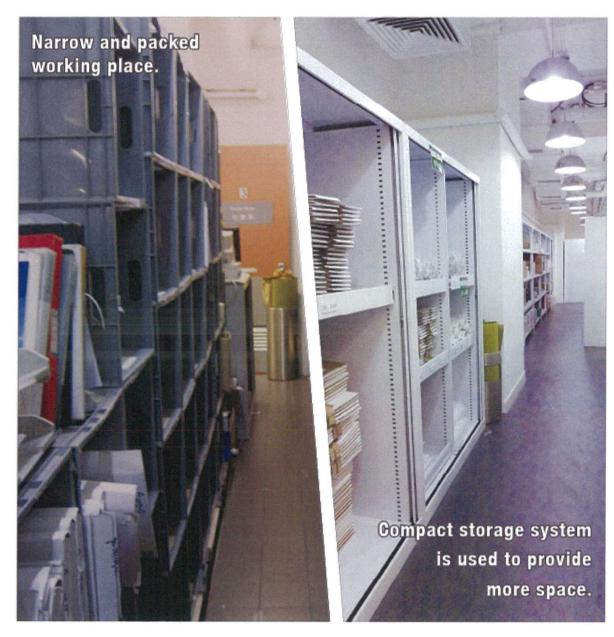
Flexible Counter



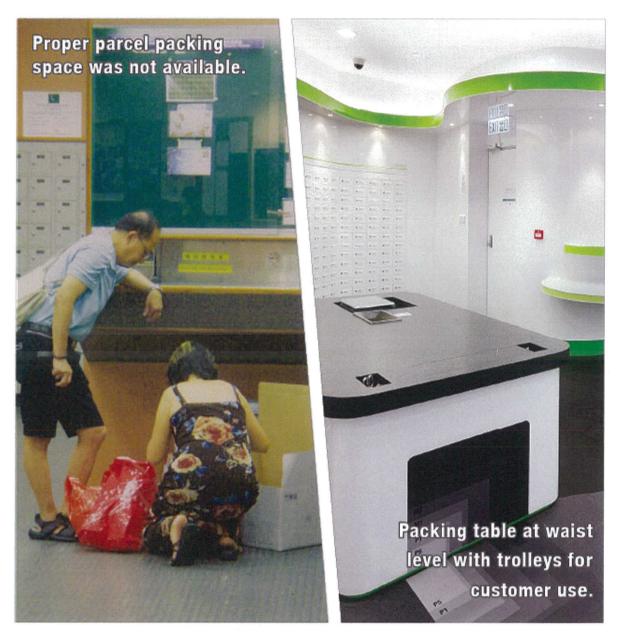
Posting Box



Staff Counter



Storage System

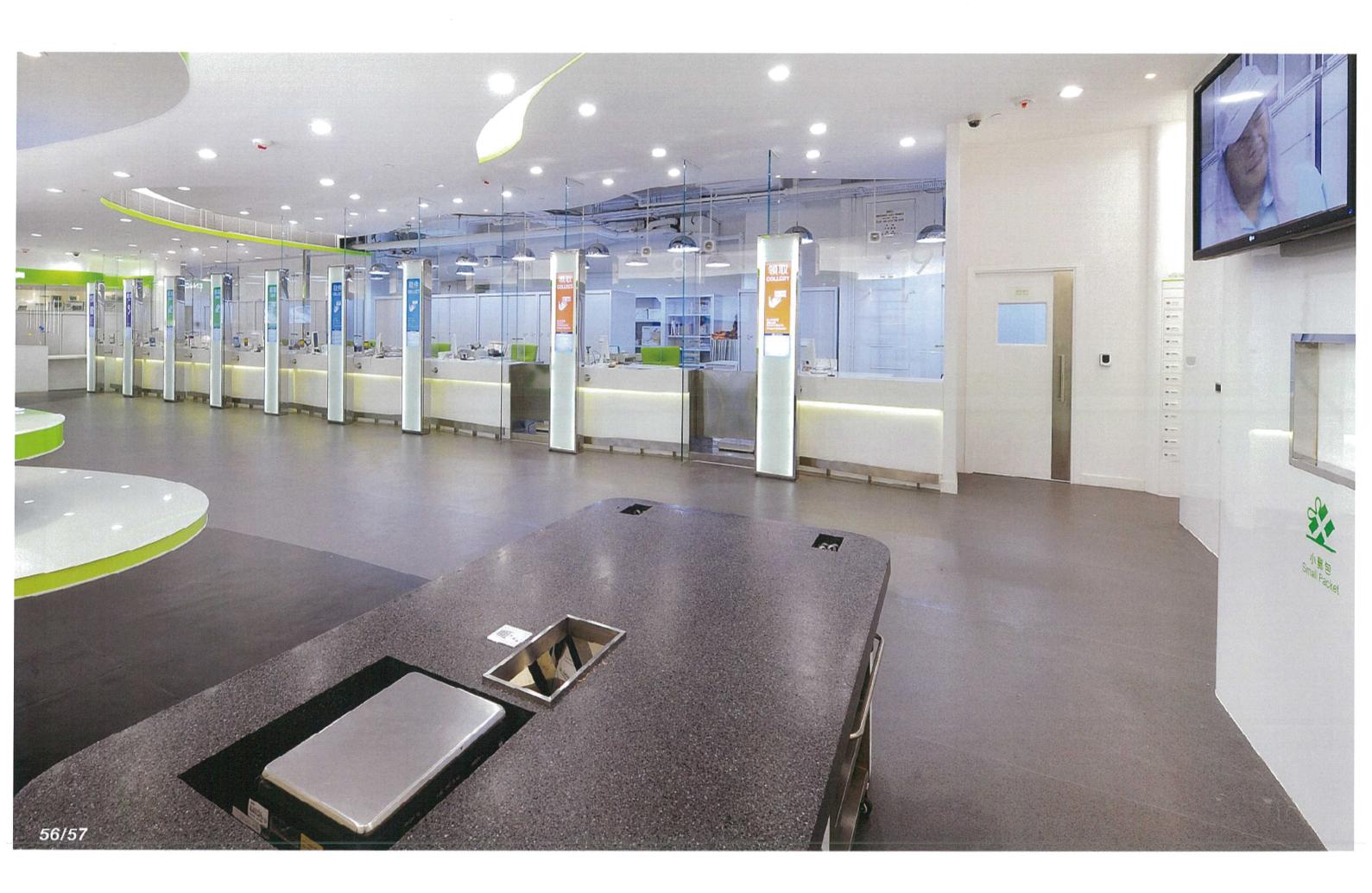


Customer Packing Island











**Post-Implementation Evaluation** 

A post-implementation evaluation was carried out by SCOPE Design Research Team of City University of Hong Kong in February 2012. The objective of the evaluation is to measure user expectations and design efficiency through observation, interview and survey with customers and staff.

# Some of the key findings from the evaluation:



97% of the interviewed customers agree the new Post Office image is professional and fresh.



100% of the interviewed customprovides more efficient service.



ers agree that the new Post Office the new design should be adopted for 92% of the interviewed customers agree other post offices.



100% of the interviewed staff finds the new workstation more comfortable as they can organize their stuff better on the table.



90% of the interviewed staff finds the new floor plan helps to improve the work flow and communication with other colleagues.



100% of the interviewed staff agrees that the open design of the new post office improves communication with other colleagues.



100% of the interviewed staff agrees that the new layout with wider corridors and more organized storage reduce the safety concerns.



100% of the interviewed staff agrees that the new setup gives higher work satisfaction.

# Highlights from customers observation

# Observations on customer usage of the new Mong Kok Post Office

Area	Observation
Flexible and effective display of infor- mation by new digital display	Customers find that the display is positioned noticeably with attractive content.
Clear and content-changeable digital display counter signage	The new signage system effectively assists customers to locate the service counter
Colour-coded reference notification panel at the entrance	Spaces can be effectively zoned up
Separate payment and mailing counters designed to reduce customers' waiting time	Most customers are happy with the shorter queuing time
A packing table equipped with pack- ing tools, trash bin and trolleys are installed	Customers can pack their parcels easily

New Post Office has a brighter lighting with a cheerful ambience	Some customers enjoy hanging around the place to explore the facilities and display after completing their tasks at the Post Office.
Designs for wheel-chair users are installed	Accessibility and a barrier-free environment are enhanced.
P.O. Boxes are located at the back of the Post Office	Customers who need to pack their parcels do not block the corridor of the P.O. Box area.
Attractive vending machines	A lot of customers like to get stamps from the vending machines at the entrance downstairs to save time lining up for services upstairs
New design and colour scheme of drop boxes are used for a clear differentiation of local and over- seas mailboxes	Customers can easily identify the location of post boxes
The new retail display of stamps and souvenirs are located close to the enquiry counter	Attractive display shelf is installed to promote sales of postal and philatelic products

64) Timeline

Phase I	Time
User-Centric Research Stage	The second secon
Phase II	Aug - Nov 2009
Identify capable design firm	Time
	Nov 2010 - Jan 2011
Finalize conceptual design	Jan - Apr 2011
Identify capable fitting-out contractor	Apr - Jul 2011
Construction stage	Jul - Nov 2011
Post-implementation evaluation	
- Addition	Jan - Mar 2012

Hong Kong Design Centre would like to thank the following individuals/organizations/companies and collaborators for their support and valuable contributions to the project. **Collaborating Parties** Hongkong Post Acknowledgements Efficiency Unit, The Government of the HKSAR Kaizor Innovation ADO Design & Public Art Consultants (HK) Limited Innovative Design Group School of Continuing and Professional Education (SCOPE) City University of Hong Kong The Asia Case Research Centre (ACRC) of the University of Hong Kong has developed a case study document on user-centric design for Hongkong Post which can be accessed by centre users worldwide.



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