

DIGITAL RECEIPT VIA QR CODE



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PROBLEM: Long paper receipts create paper waste, thermal paper receipts linked to BPA exposure, and paper receipts do not effectively engage the end user.

Internal Problem: Users without technology.

SOLUTION: Create a website that links to a register to create a QR code to be displayed and scanned from the end users phone to reveal their receipt information, and effectively engage the user in promotional material. The user will have the option to email or download their receipt information, as well as be linked to further promotional material.

Internal Solution: View receipt on display, choose to email to yourself or print QR code with website & sales number for later use.

WEBSITE SUPPORTED FEATURES:

- API to connect website to register database.
- QR scanning & QR creation directly on the webpage.
- Sales lookup by QR code or sale number.
- Option on webpage to email receipt & QR code to end-user.
- Implement client promotional material into digital receipt with engaging links on the webpage once QR code is scanned.
- Option to print QR code with website & sales number if the user does not have email or device accessibility (no device, or blind) for ability to access later, through assistance, or scanned for returns and exchanges at the retail location.

SURVEY OF WEBSITES & SIMILAR APPLICATIONS:

- **AllReceipts** is an application-based service connecting promotional material to the end user via QR codes on a receipt.
 - **SIMILARITIES:** AllReceipts purpose is to better drive user engagement through digital promotions and minimize needed receipt paper space.
 - **DIFFERENCES:** AllReceipts is purely application based; they also do not code the entire receipt but just the promotional material. My application will be purely web based and digitize the entire receipt.
- **Paydian** is a PayPal service that is implemented into the clients merchant and retail applications. It is an all-encompassing service.
 - **SIMILARITIES:** Removes paper and ink from the picture and drives client engagement.



- **DIFFERENCES:** Application based by both the client and end user vs. my web-based version for all.
- **Gimme!** is a QR service which is implemented at the register level and prints a QR code onto the receipt to connect a user with an online promotion.
 - **SIMILARITIES:** Uses QR codes to engage the end user, is web based, and minimizes receipt paper space.
 - **DIFFERENCES:** Only eliminates promotional material from receipt paper but not the entire receipt.
- **WebQR** is a web based QR code scanner that enables users to scan any QR code through their website on desktops online, but can also pass a link and create their own QR code.
 - **SIMILARITIES:** Use of QR code scanner on the web for easy access, creation of QR code for any link.
 - **DIFFERENCES:** No retail register implementation, no mobile support.
- **Paperless Receipt Solution (PRS) System** is a fully implemented QR code retail experience, which consists of customized QR libraries of scanned products, a scanning register, a mobile device card reader, and an application.
 - **SIMILARITIES:** Completely paperless receipts using integrated QR scanning with a register.
 - **DIFFERENCES:** Not purely web based and has many moving parts.

RESOURCES:

Market research on connecting humans with the digital world:

<https://cdn.intechopen.com/pdfs-wm/31056.pdf>

Research on BPA exposure through thermal receipt paper on humans:

<http://www.sciencedirect.com/science/article/pii/S0378427414013101>

Competing services:

<https://allreceipts.com/>

<https://www.paydiant.com/partners>

<http://getgimme.com/>

<https://webqr.com/>

<https://jamesdysonaward.org/projects/paperless-receipt-solution-prs-system/>