

nordic^{id}

S/MART WHITE PAPER

DISCOVER THE AUTOMATED STORE OF THE
FUTURE

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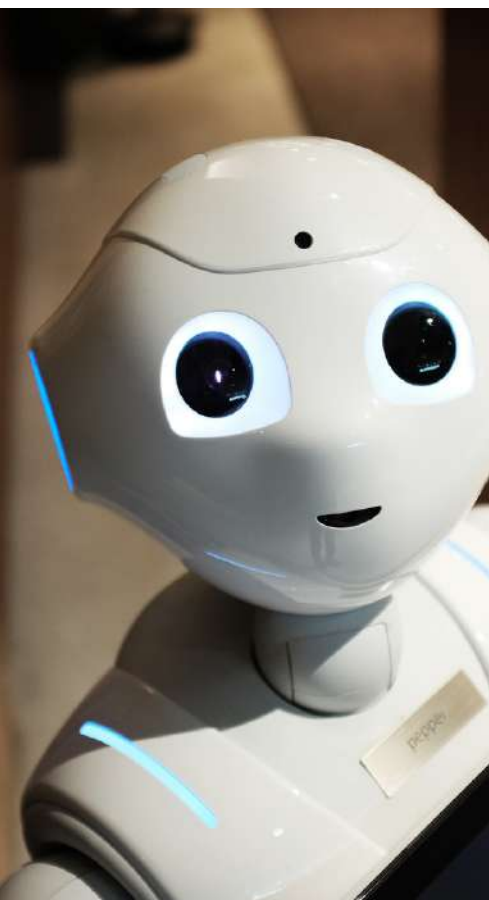
THE FUTURE OF BRICK AND MORTAR SHOPS – THE BIG PICTURE

Is there a future for unmanned shops?

“As a result of online experiences, in-store shoppers now expect to get detailed product information in the store, read ratings and reviews, get help physically finding products, get access to the best price, and be able to skip the cashier line on the way out.”(1)

Online shopping has not killed real-life shopping, but it has definitely transformed the shopping experience and customers’ expectations. **We have grown used to shopping without human interaction**, and, while human input will always be needed behind the scenes, we easily manage without cashiers. At the same time, we tend to expect a personalized and seamless shopping experience.

However, the rise of automation is not simply a result of changed shopping behavior. Manual work has been on the decline since the 1970s (2), and, according to The Future of Jobs Report, “75 million jobs may be displaced by a shift in the division of labour between humans and machines”.



(1) Jason Goldberg, “The Future Of Brick-And-Mortar Retail Is Mobile”, Forbes, 2018

(2) Citi GPS, “Technology at Work v2.0”, 2016



This is due not only to changes in the work landscape and the development of smarter machines, but it also reflects demographic macro-trends.

It is a known fact that in the last 50 years the global fertility rate has halved (3). The decline of birth rate paired with increased life expectancy in developing countries has been at the center of many debates, especially concerning a declining labour force. **Will there be enough young people in the workforce or will the increasingly ageing population be served by robots?**

In a context of declining workforces and increasing customer demands, it is not surprising that countries with a strong background in robotics, like Japan, are preparing for a world where most shops will run unattended (4).



The trend towards automating boring, menial tasks started decades ago, and we are now experiencing the Fourth Industrial Revolution, allowing us to fully explore the potential of technology to make our lives easier. **It is important to realize that we are just starting to understand the potential of automation and AI.** Automation can do much more than just replacing manual work, and it is increasingly used to support decision-making even in the most sensitive fields, like medicine.

(3) Max Roser, Our World in Data, 2017

(4) Todd Schneider, Gee Hee Hong, & Anh Van Le, "Land of the Rising Robots", Finance & Development, 2018

THE POTENTIAL OF AUTOMATION

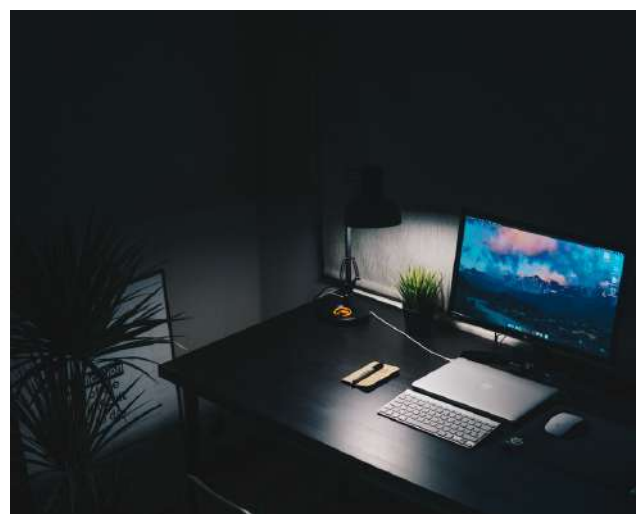


In conclusion, there is huge growth potential for businesses embracing automation. This is the future of brick and mortar stores.

IN FACT, BUSINESS GROWTH IN THE UPCOMING YEARS WILL BE DRIVEN BY FOUR BIG TRENDS:

1. High-speed internet
2. Artificial intelligence
3. Big Data
4. Cloud technology (5)

Read on to learn how automation can help you grow your business and discover the benefits and business case of automated stores.



THE BENEFITS OF AUTOMATING THE SHOPPING EXPERIENCE

"When it comes to buying groceries, only 17% consider human interaction important. When shopping for clothing, human interaction is not necessary for more than half (63%) of us." (6)

The potential for unmanned stores is the clearest in contexts where time is of the essence. Quick Service Restaurants and convenience stores suffer the most from the unforgiving equation between perceived waiting time and cart abandonment. In fact, if customers perceive that they have been waiting in a checkout queue for more than 6 minutes, more than 50% will abandon their cart.

We all know that time is relative, and 5 minutes at a convenience store can feel much longer than 30 minutes queuing for a Disneyland ride.

In the case of restaurants/take-way joints the issue of delayed gratification becomes prominent, with double waiting time (once to place the order and once for the food) being a leading cause of frustration and low customer satisfaction.



Slow service can also be a problem for convenience stores, where the worry that others might be waiting in line for gas can lead to skipping the opportunity to browse and make additional purchases.

For instance, in gas stations the short peak times in the morning and early evening would require more staff to eliminate the queues.

While we tend to expect to be inconvenienced while grocery shopping, our tolerance for waiting times and slow service tends to be much lower for convenience stores and other types of quick service shops whose main selling points are speed and efficiency.

In practice, employing an extra person for a few hours two times a day is not a profitable option, which means that providing the customer with other options such as automated self-checkouts becomes an efficient alternative.





On the other hand, brick and mortar shops are not going anywhere:

“83% of shoppers feel stores are important as they allow people to see, touch and feel a product.” (7)

In order to leverage the potential of both digital and live experiences, many merchants are adopting an omnichannel approach, merging online and offline. **What’s interesting is that even the biggest brand in online shopping, Amazon, has seen the potential of real-life shopping experience** and opened 10 Amazon GO stores in different locations across the United States.



What makes Amazon GO very different is the transformation of the shopping experience, with cashierless and cashless “Just Walk Out” technology that eliminates the need for traditional checkout.

The Amazon Go model does present some challenges.

While Amazon GO seems to have found a successful model for unmanned shops, it would be hard to replicate it by using the same technology.

WHY THE AMAZON GO MODEL IS HARD TO REPLICATE



The cost for the first Amazon GO store was quoted by Bloomberg at one million, and while the front of the store appears like the frontier of the digital future, the back hides human workers replenishing the inventory.

Moreover, relying on cameras means that the layout of the store cannot be flexibly changed, and the technology used also raises serious privacy concerns among consumers.

Camera analytics also require a long set-up time, as it takes time for cameras to learn where each item is located.

Does this mean that all unmanned shop concepts are prohibitively expensive? Actually, no.



NORDIC ID S/MART

"61% of global consumers are willing to shop in a completely automated store, and 42% prefer to shop in one." (8)

Nordic ID S/MART addresses the potential of unmanned, automated stores with technology that is:

- cost-efficient
- flexible
- easily scalable

Let's break down what Nordic ID S/MART is and how it works.

Nordic ID S/MART digitalizes the steps in the general in-store customer journey and delivers an always open, unmanned shop concept easy to scale and flexible to deploy.

These are the steps of the customer journey that we can help digitalize:

- identification and welcome of the customer entering the store
- experiential shopping experience
- seamless checkout and exit from the store



For customers using the Nordic ID S/MART, this is how the customer journey looks like.

1. ENTERING THE STORE

Before a customer can enter the shop, there needs to be some form of **automatic or semi-automatic identification**. This can be done, for example, by asking consumers to submit their credit card information, or via a dedicated mobile app, that can also be used to foster loyalty programs and incentivize returns.

Customer identification can be matched to the merchant's existing customer system, ensuring traceability and protecting the privacy of the customer's data, as Nordic ID doesn't retain it.

2. PERSONALIZED SHOPPING EXPERIENCE

Once inside, customers are greeted by a welcome screen that can serve **personalized welcome messages and targeted marketing messages**.



3. ITEM COLLECTION



When selecting any item inside the shop, customers can place it on our Infokiosk, immediately receiving specific information related to the product. If paired with a mobile app, it would also be possible to customize messaging, for example, with tailored alerts. Possibilities are endless, but imagine, for example, being able to pre-select an allergen from a list of possibilities in the mobile app and receiving a tailored alert when scanning an item containing that allergen.

Nordic ID S/MART can be equipped with smart shelves enabling real time inventory information.



By adding surveillance cameras and remote control of the interior, **you can monitor multiple shops at once, and with integration to the Radea platform, you can, for instance, track product availability and replenishment needs in real-time.**

4. CHECKOUT

Once their basket is full, customers can immediately checkout in just a couple of seconds! You can decide to use your own self-checkout design and we will provide the technology, or you can go for our award-winning Self-Checkout kiosk.

The Nordic ID Self-Checkout allows you to scan all items at once, without needing to scan items individually or even remove them from the bag. Moreover, you can use your existing point of sale solutions and ensure fast checkout via credit card or mobile pay payment. Payment solutions are always provided by an external provider you have chosen.

5. EXIT

Thanks to real-time inventory, **sold items are immediately registered as paid for, and the customer is allowed to leave the shop**. The gates/doors open automatically once every item removed from the shelf has been paid for. If needed, an alert system can be set up to ensure customers don't leave the shop without having paid for all items.



THE MAIN FEATURES OF NORDIC ID S/MART

With Nordic ID S/MART, you can implement:

ACCESS CONTROL

Decide who enters the store and how. You can make the identification process seamless, and boost the use of dedicated mobile apps, and, as a result, customer loyalty.

REAL-TIME INVENTORY

With the combination of our Smart shelves and real-time inventory platform, you can access real-time information about your inventory and also get tailored replenishment alerts. Moreover, real-time inventory automates the customer journey, as checkout and exit can be completed in seconds.

PERSONALIZATION OPPORTUNITIES

You can provide item information that supports purchase decisions via our Infokiosk and personalize messaging related to your products and brand, as well as welcome messages. Bring the best elements of online shopping to your brick and mortar store for a truly personalized customer experience.



THE MAIN FEATURES OF NORDIC ID S/MART

IMMEDIATE SELF-CHECKOUT

Choose your own design or the award-winning Nordic ID Self-Checkout to eliminate queues. Your customers won't need to scan their purchases individually and pack them, as our Self-Checkout reads the whole bag at once. You can also choose the payment solution of your choice, provided by external partners.

PRODUCT INFORMATION

The Infokiosk offers additional product information and branded content. It can support the customer's buying decisions and act as a digital shopping assistant.

KPIS AND REPORTING

Access advanced reports via our Nordic ID Radea platform. You will be able to track the number of customers and sold items, be informed of replenishment needs and inventory status, and make predictions and improvements with heat maps and other KPIs.



THE MAIN BENEFITS OF NORDIC ID S/MART

FLEXIBILITY

The Nordic ID S/MART is flexible and easy to scale. It can be set up in closed enclosures or open-spaces, and can even be mobile (for example, as a container on wheels for events, festivals etc.).

COST-EFFICIENT

If you have been put off by the cost of other unmanned store concepts, you will find that deploying Nordic ID S/MART is a very cost-efficient operation. Not only is the set-up cost much more reasonable than options based on other technologies, several stores can be operated by one single employee taking care of restocking, cleaning, and other tasks needed.

HIGH ROI

You can unlock higher sales as the store can be open 24/7, and never run into out of stock situations. Moreover, this solution results in low staff costs and can be deployed in locations that are not profitable for traditional shops.

EASY TO DEPLOY

Easy to deploy and scale, you can also smoothly integrate it with your existing services, for example payment solutions and surveillance systems. We will take care of the deployment, making it a stress-free and painless experience.

REQUIREMENTS FOR SETTING UP A S/MART

Requirements for setting up an unmanned shop based on our S/MART concept is a suitable space and RFID- tagged items.

Higher profits are a direct result of more efficient staffing and longer opening hours.

The Nordic ID S/MART is fast to deploy, flexible, and easy to scale. Our team is supporting you through the whole process, providing you a “one-stop-shop” kind of deployment experience.

We have even calculated that for 10 stores, increase in profitability can be roughly 40% (37%) per month.

Whether you are looking at an open-space or a closed container concept, regardless of industry, our solution is flexible and easy to implement.



LEARN MORE ABOUT NORDIC ID S/MART



Want to understand if you could implement this solution or receive more information? Contact sales@nordicid.com to request a personalized consultation or more information.

Contact us
to learn more

ABOUT NORDIC ID

We are the go-to partner for RFID based PaaS applications in Europe. Our solutions enable our customers to manage their business processes based on facts and bring transparency to their manufacturing processes and predictability to their operations.

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