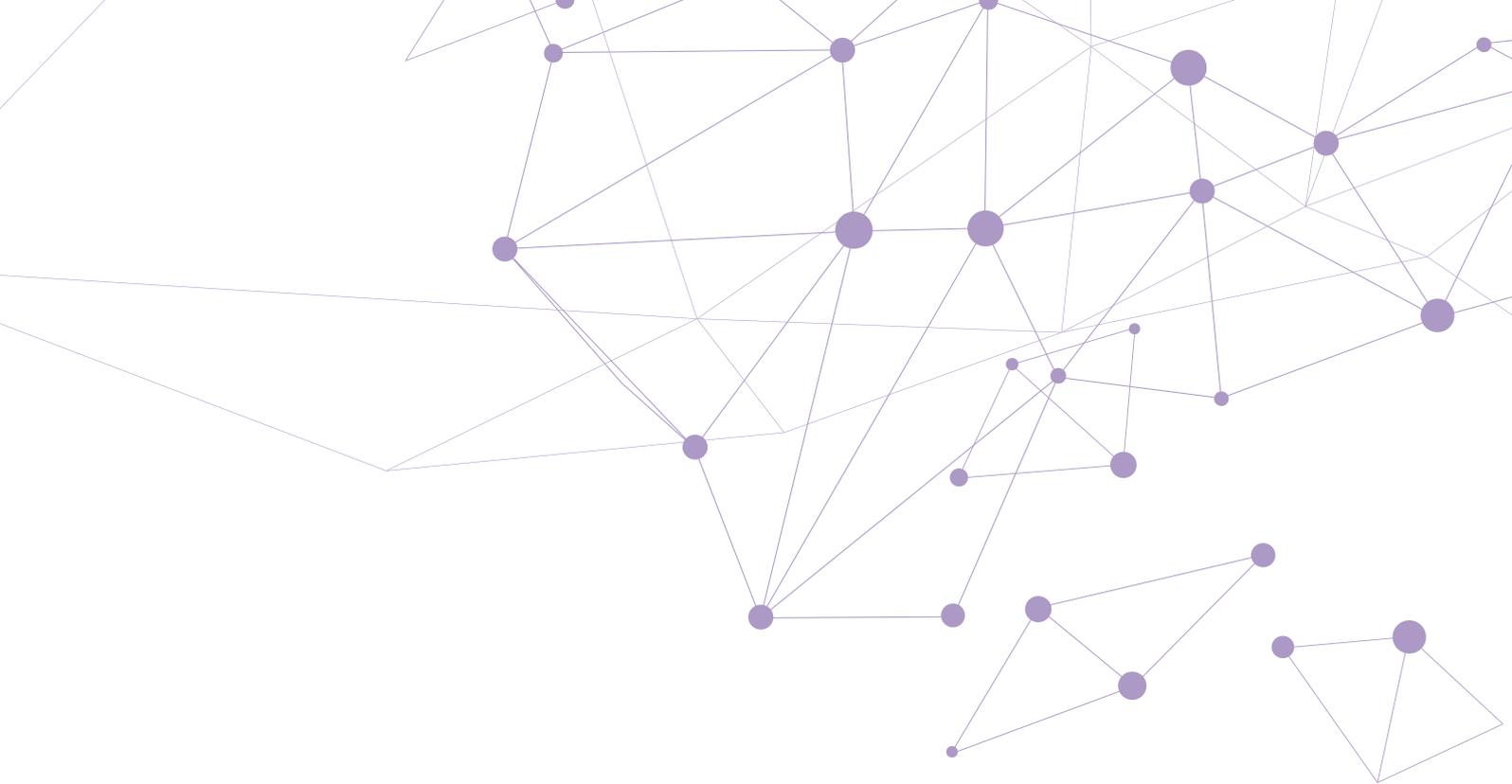


POLYTOUCH®



The perfect kiosk manufacturer?
What makes all the difference!

PYRAMID



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The calm before the storm!

1. Self-checkout on the rise

In September 2021, the US market and management company GMI published a 380-page report about the future of self-checkout. In it, the US is expected to grow at a CAGR of 13% from 2021 to 2027. Growth drivers will be supermarkets, where there will be significant penetration of SCO solutions.

A recent study by Raydiant, who are well-known specialists for in-store experiences using self-service technology, as well as room and desk management, points also in the same direction. According to the survey The State of Self-Service Checkouts,

published on Feb 19, 2021, of "1,000 U.S. consumers, 60% of respondents said they prefer self-checkouts over store associates if given an option. Nearly half of respondents (48.7%) said they use self-checkout kiosks almost all of the time."

The numbers show: The trend is towards SCO solutions. The drivers behind this shift are, on the one hand, consumers' increased openness to technological solutions for checkout and, on the other hand, hygiene awareness, which has been permanently changed by the pandemic experience. 51% of the

approximately 25,000 consumers surveyed worldwide in the Adyen Retail Report for 2020 expressed their expectation that retailers will provide technologies that enable social distancing. Self-service terminals in combination with contactless payment meet this new customer need, which until the pandemic, played virtually no role in the discussion about the benefits of self-service technologies.

SCO solutions meet these consumers' hygiene demands by reducing contact. At the same time, they speed up shopping without long waiting times



CUSTOMIZATION

Modular product designs, individual customizations, CMF for your brand



FLEXIBILITY

Fast design and engineering for product development, short product launch times



EXPERIENCE

Numerous references, well-known clients, large-scale projects & deployments



QUALITY

High quality production & manufacturing standards, coordinated & experienced supply chain

at traditional checkouts. This is also important because consumers in supermarkets and convenience stores are very time-conscious, so their consumer journey tends to be short. They are not willing to spend more time than necessary in store.

It comes clear that the conditions for SCO solutions have never been as favourable as they are today, and that also benefits the operators. For them, the introduction or expansion of self-service terminals is an opportunity to streamline the process through digitization. In addition, personnel resources are freed up: instead of monotonous checkout, employees can take on more demanding and important tasks: such as checking inventory to returns management and advising customers. Digitizing the checkout also sends out a signal to customers that should not be underestimated: the retailer shows that he has its finger on the pulse with advanced technologies, thus valuing its customers and doing a great deal for them to make them feel comfortable in store.

It is time for operators to jump on the SCO bandwagon or modernize existing SCO solutions. This has to be done in such a way so that the high expectations of the consumer in the SCO are met and at the same time the operator gets the full benefits for his business out of it.

Meeting the dual challenge depends on choosing the right kiosk technology and the right kiosk manufacturer!

»It comes clear that the conditions for SCO solutions have never been as favourable as they are today, and that also benefits the operators.«



Familiar easy-use technology.

2. The best for both

2.1 Consumer centricity: Make things easy and simple

Don't miss the chance!

For consumers, the self-checkout is the last touchpoint with the company or brand before leaving the store. The impression at the SCO terminal is therefore a decisive one! The self-checkout often only has one chance to prove itself as an alternative to traditional checkout. If the opportunity is missed, the consumer may not be persuaded to try it again any time soon.

For the customer, the terminals must be easy to use! Simplicity is the decisive factor for success, for the permanent use of the SCO by the customer. But, how does the self-checkout become simple? How does high usability work?

Speed is the key!

According to the Raydiant's survey, „21.9% of shoppers will not use a self-checkout option that is slower than they deem reasonable.“ Therefore, the performance of the overall system and the technical quality of its components are the basis for a fast and efficient SCO experience for the customer - even at peak times.

This is exemplified by the scanner: as the module for the most repetitive

SCO phase, which is the highest source of errors during the checkout of large shopping carts with high frequency, it plays an essential role for a seamless SCO. Therefore, with a high quality kiosk, a high-precision scanner has to ensure an absolutely smooth SCO process, i.e. scanning succeeds even with a larger volume of goods as well as possible fast and irregular scanning movement along with damaged or critically attached labels. This makes the SCO easy and convenient for the customer just by using the right hardware.



Make it familiar!

For consumers, interaction with technology has to be frictionless: workable and seamless for everyone, regardless of age and ability. To this end, all modules have to be ergonomically arranged within the smallest possible interaction radius in such a way that the SCO process is virtually self-explanatory and the customer is guided through it.

Further: To make it easier for the customer to handle the self-checkout, the terminal should be designed in a familiar way. Various approaches are possible here: the look and feel of a terminal can be based on that of a tablet, as many customers know it from home: a display in portrait format and the modules arranged vertically around it. Another option, depending on the use case, is to model the self-service terminal on the checkout counter, in which the scanner and printer are embedded. In this way, the customer can simply slip into the role of the cashier and imitate his processes, which he knows from many years of observation.

For even greater usability, an LED user guide navigates the customer through the whole self-checkout process, pointing out where and how to insert their loyalty or credit card into the reader, for example.



To do SCO like the professional cashiers.

Act, don't queue!

Such a customer-focused SCO terminal is convincing the first time it is used. The positive psychological aspects of a sense of achievement with the SCO should not be underestimated either: it frees the customer from waiting passivity in the queue and hands over the reins of action to him. Even the speed of checkout is determined by the customer and not by others. All these benefits increase the customer experience.

When customers enjoy their shopping experience, this strengthens their loyalty to the company and the brand. According to an analysis by Bain & Company, companies that succeed in achieving a high level of customer loyalty can increase their earnings by 4% to 8% compared to the market average.

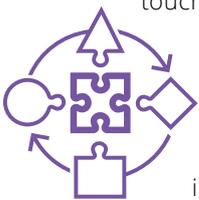
2.2 Operator centricity: Optimum tuning for every use case

Design? Modular!

Self-checkout is not just self-checkout. The technical design of the terminal should therefore be tailored to the specific requirements of the operator, the floor space, and the software application: payment, printer, scanner, touchscreen, camera, receipt reader, receipt shredder, and ADA panel must be matched to each other based on the respective use case for optimum interplay. This is the only way to successfully map and optimize the processes. An intelligent modular principle makes it possible to integrate any required peripherals without any problems, i.e. without additional costs. This is how the cost-efficient configuration and customization out of the shelf works. It also enables fastest times to market, even for orders with high customer-specific requirements.

This also applies to loss prevention: In supermarkets, customer traffic in the area with the kiosk terminals is high and many self-checkout processes take place in parallel. It is therefore difficult for the sales associate in charge

to keep an eye on all the terminals and detect unintentional no-scans or fraud attempts. If such a scenario is to be expected, it is advisable to integrate security measures into the terminal, e.g. a scale to compare the scanned item with the target weight. In smaller and more manageable convenience stores, where it is easier to see what is happening during the self-checkout, this security measure can be dispensed with, which is of course reflected in the lower investment costs for the terminal.



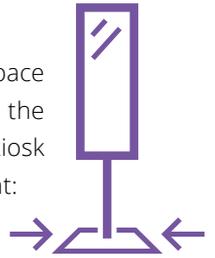


PC-unit? Powerful and reliable!

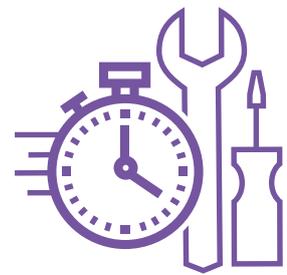
The heart of every kiosk system is its PC unit, where the threads of all the peripherals come together. A good kiosk builder does not simply buy any heart and install it. He manufactures the heart himself, i.e. he selects the mainboard, processor and RAM and assembles the whole thing into a PC box in his own plant. The resulting technology is both powerful and highly reliable. Its performance is tailored to the use case of the operator, who only pays for the boost he actually needs. In addition, having future innovations in mind, the heart is designed to already be compatible with new processor generations. This ensures speed for the self-checkout of tomorrow.

Footprint? Small!

For almost every retailer, space is valuable, which is why the space requirements of a kiosk terminal are also important: the more compact or slim a solution is, the easier it



is to integrate into existing store concepts, and the more space there is for the range of articles and services. In a convenience store, unlike a supermarket, even more attention will have to be paid to ensuring that the kiosk is very compact or slim so that it can fit into and take up as little floor space as possible. In order for the kiosk to fit flexibly into the existing store concept, it must have several mounting options: wall-mount, desk-mount, and pedestal. In some cases no mounting system needed at all because the terminal can be set up as a countertop?



Installation work? Minimal!

A good kiosk terminal is also characterized by the fact that the work required to install it is minimal. This is helped by the fact that the single components (display unit, pc unit, chassis and pedestal) are so easy to connect according to the plug-and-play principle that the terminal can be set up quickly and without problems, virtually

without a manual.

The interior of such a kiosk is well structured and everything is set in place: one central contact point (PC Box) supplies all peripheral modules with power. Therefore, no further power cables or power supply units are necessary. What's more: video signal and power gets to the screen via just one connection. That means maximum clarity, instead of cable clutter. This also makes it easy to move a kiosk if the location needs to be changed because the store concept evolves. So these factors lead to a low installation effort and thus to low costs.

Serviceability? High!

The kiosk's high serviceability also contributes to its cost efficiency. All components are easily accessible so that regular maintenance can be carried out quickly or consumables replaced quickly. For example, the printer should not have to be removed just to insert a new receipt roll. Maintenance has to be so simple that, again, no manual is required.



Adaptable? Chameleon-like!

The demands on the SCO are changing permanently, i.e. a terminal must be able to keep pace with the needs of the operator and the customer. It must be adaptable like a chameleon so it will be possible to implement the upcoming changes with a minimum of costs: for example with a hand scanner for the checkout of large items after the product range has been extended. The same applies to the deactivator to be installed subsequently, after the decision has been made to mark the entire article assortment or part of it with RFID tags.

»It must be adaptable like a chameleon so it will be possible to implement the upcoming changes with a minimum of costs.«

Appearance? Eye-catching!

A kiosk terminal should always be a corporate and brand ambassador! What should the visual design of the device look like so that it can fulfill this function? Its design, but also its color scheme, should optimally reflect the spirit of the company and, in addition, make the terminal an attractive landmark on the floor so that customers are attracted, as it were, to try self-checkout.

Conclusion?

For a kiosk manufacturer the challenge is to offer SCO solutions to operators and customers. He has to be aware of both needs, to combine space efficiency, quality, high performance, easy installation, and high serviceability with intuitive user interfaces and ergonomic design all in one solution. The terminals have to deliver to benefit both operator and customer at the same time.





Technology to meet the challenges of today, tomorrow and beyond.

3. The future is always just one step away

SCO technologies are in constant flux: pandemic has fueled speed of innovation. Independently of this, new technologies are emerging and existing ones are evolving at break-neck speed. Another driver towards the future is changing customer preferences and expectations, which are shaped depending on the available technology and current shopping trends. To react on these permanent changes, SCO terminals must be open to the future hardware – to meet the challenges of tomorrow and beyond. They are to be designed to provide consumers with a

truly seamless SCO experience and operators with cost-efficient upgradeability, even with next gen technology.

Where today there is an LED light for user guidance, in the near future a camera will have to find its place, providing high-resolution images for an AI machine vision solution running on the server in the back office.

Then the consumer just has to place one item after each other under the camera and proceed with the payment. In a fraction of a second, the camera device will automatically recognize the items, without the need to scan barcodes or manually enter the name or the number of the item. Less doing, more done: how

to work smarter, not harder. That's the way into the future of self-checkout. However, the range of such a camera is much wider. Together with the appropriate software, it can also be used for loss prevention: The scanning process is monitored for correctness, effectively reducing the number of intentional or unintentional no scans. In field tests, such solutions achieve

99% accuracy in object and process recognition. There are no data protection concerns, since the customer is recognized as an abstract object and not as a personal characteristic. What seemed unthinkable just a few years ago will become market-ready in the near future, and the use of these technologies will be an important means of differentiation

from the competition. The examples show how important the openness of technology platforms is for the integration of next gen innovations. With flexible kiosk technology based on openness and modularity, it will be possible to quickly exchange or extend components while avoiding unnecessary divestments. This will make sure that operators' return on

invest will extend over many years. That is what future proofing for a kiosk manufacturer really means.

4. Beyond just building kiosks

In most cases, it is not enough just to send the new kiosk to the operator. Often, store operators' concerns about the difficulties of integrating terminals into an existing hardware and software system inhibit much-needed innovation. Therefore, a kiosk manufacturer must also have the knowledge of how to integrate terminals into an existing topology and, of course, if an operator wants to take his first steps into self-checkout at all, how to create a topology from scratch.

Also of great benefit to the operator will be the proven and extensive network of software partners that a good kiosk manufacturer has. With them, he can effectively support the retailer in designing user interfaces and workflows tailored to his very specific use case.

Last but not least: If the retailer needs advice or support, it must be certain that his call or e-mail does not end up in a call center, but with in-house experts who are easily accessible and close to the product, which they know as well as the back of their hand from their own experience and handling. Support from the in-house expert teams in sales, product management and customer service is of eminent importance. It is best if in each of these departments there are fixed contact persons, who know the retailer and his uniqueness well and therefore know very precisely, what is particularly important to him and his business.



5. What makes the difference?

In the age of globalization, it is easier than ever for retailers to buy kiosk terminals from anyone anywhere. So they will certainly be able to make a favorable purchase. But this may soon prove to be a boomerang when the first customers complain about the unreliability of the terminals, which are furthermore difficult to use or can only be extended or upgraded at great expense.

In order to achieve the highest level of customer satisfaction with the self-checkout solution and at the same time secure its future-proof, a retailer should choose a kiosk manufacturer whose systems have both consumer and operational centricity and are open to cost-effective implementation of the innovations of the coming years. It is also important to ensure that services and support are in place and complement the hardware solution in a meaningful way.



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