MICRO FULFILLMENT

UNDERSTANDING KEY SHOPPER BEHAVIOURS THAT IMPACT MFC STRATEGY

TGW
LIVING LOGISTICS

Shopper Missions

How we are categorising shopper missions

Shopper Frequency

Our perspective of increasing shopping frequency

Interview

Interview with e-grocery veteran Jason Soar

Rapid Delivery

The demand for rapid e-grocery deliveries in the near future

Shopper mission types

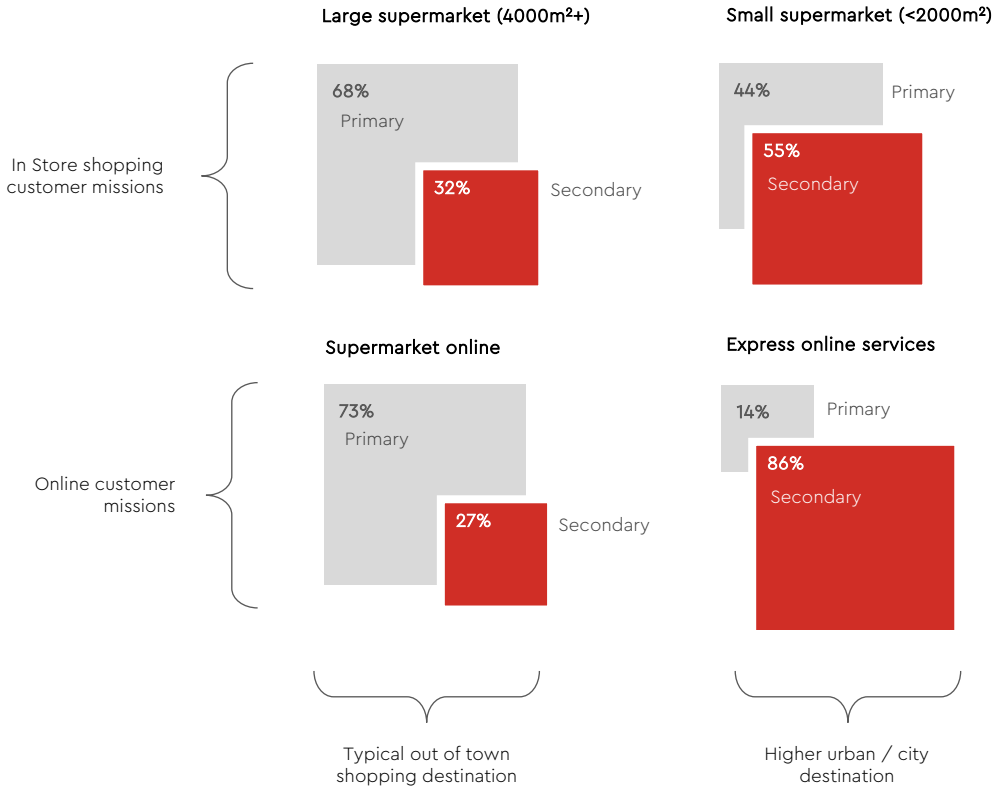
To help us understand the market, we will introduce the concept of 'Primary' and 'Secondary' shoppers in the grocery sector.

The primary shopper is someone seeking to shop for a 5 to a 7-day time frame - Insight shows that this customer has an average basket value of $128 per shop when shopping in-store and $140 per shop when purchasing groceries online.

A secondary shopper is someone looking to shop for groceries at their convenience – this may refer to someone buying speciality products, someone buying for events, someone shopping in distress, i.e. "I need it now", or as a general top-up shop support their primary shopping activity. A typical secondary shopper basket would be in the region of $32.

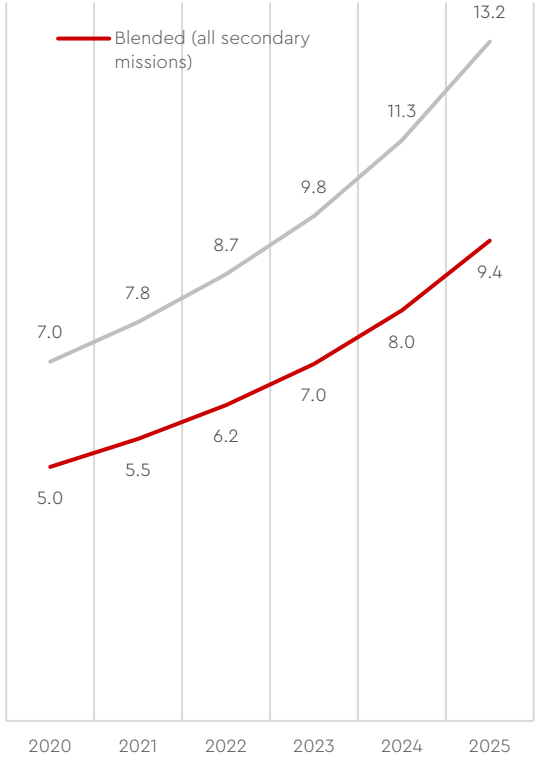
Frequency is linked to the shopper mission, with secondary shoppers purchasing groceries much more frequently than primary grocery shoppers. In practice, many shoppers switch between the two shopper types depending on their needs – our analysis is based on the number of trips, with the mission defining the trip type.

Fig. 12
Categorisation of shoppers based on mission type – Primary and Secondary shopper types



Increasing frequency

Fig. 13
Number of secondary shopping trips per month



Increasing order frequency is estimated to be one of the significant factors impacting the profitability of online grocery services over the next five years.

Research conducted by the grocery thinktank Globaldata illustrates that we can expect to see a dramatic increase in the number of trips over the next five years for secondary shopper missions. The biggest driver of this increase will be top-up shopping online.

They expect to see the total number of trips where the shopper is on a secondary shopping mission almost double between 2020 and 2025. This will put increased pressure on retailers to ensure that they have an operating model that can cope with a significant increase in the number of drops per trip and a reduction in total basket size.

At the same time, shoppers are still shopping less in stores as a consequence of the Pandemic – in a recent consumer survey by Deloitte Bay State that the 11% of respondents who said they shopped once a week now shop once every two weeks on average with more top-up deliveries from an online service. A further interesting observation from this consumer survey highlighted that secondary shoppers also are increasingly valuing breath of range as well as being price sensitive.

Other factors also influence this increase in secondary shopper mission frequency, including increasing the proportion of single-occupancy households now shopping online for 17.6% in 2021 versus 14% in 2019.

Distress shopping machines as a subset of secondary shopping missions represent the rise of rapid grocery delivery services – these services are essentially an emerging market.

Rapid Grocers maintain a small product offering of around 1,000–2,000 SKUs that consumers typically find in convenience stores. The ranges are purchased directly from brands or distributors and stored in self-operated 'Dark Stores' close to customers' locations.

It is essential to note the inverse relationship between delivery speed and average basket size. Rapid Grocery platforms are restricted to offering a smaller product selection in exchange for quick delivery, and therefore typical average order values are very low.

Interview

Jason Soar

This interview contains views that originate from outside TGW. It is therefore possible that the interview does not fully reflect the views of TGW Logistics Group.

Jason Soar

Partner, Co-Founder, and Member of the Digital Commerce group at The Partnering Group. Grocery start-up veteran and experienced retailer.

Jason, what can you tell us about the latest developments in grocery delivery that might be relevant for investors?

There are several interesting developments which I would consider looking into at the moment. One of the largest costs of last-mile delivery stems from poor route optimization when making multipoint pickups and drop-offs. Partnerships with nearby restaurants could help develop a "food hall"-like the online market to improve the customer experience and offer more variety. Solutions such as Toronto's Kitchen Hub Food Hall allow customers to place a single order that includes items from multiple restaurants. Families that can't agree on what to have for dinner can include a variety of cuisines, such as burgers, sushi, and stir-fry, in the same order.

Have you seen anything recently that you think is particularly innovative or creative?

Combining dining and television with "taste your favourite cooking shows at home" type of offerings, in which meals are delivered so that viewers can dine at home "alongside" their favourite celebrity chefs. Rachael Ray partnered with REEF and Uber Eats in 2019 to launch her latest cookbook, offering fans in certain cities the opportunity to sample her recipes without so much as turning on their ovens. "It's me, joining people for dinner,"

In your opinion, how compelling is the business case for rapid grocery delivery and what can we expect to see in the next few years?

Traditional grocers are experimenting with a fast delivery turnaround. Ocado Zoom and Sainsbury's Chop Chop (which I helped to create) are all available and have fantastic propositions for distressed shopper missions and of course the market is being flooded with disruptors too - Getir, Gorillas, Weezy, GoPuff etc.

I'm not denying the hunger for immediacy – but immediacy can often mean 'now'. We can see this from search behaviour, with people looking for where they can go to grab produce and goods 'in the moment'. Searches for a 'supermarket near me' have increased 57% year on year to date. So let's not overlook the role of the local shop in the future.

Perishables are a very different story. Cautious evaluation, rather than a headlong rush, is good advice. Nearly three-quarters of consumers still prefer to choose fresh products themselves. What is clear, however, is the need to futureproof against how core grocery shoppers' expectations will evolve.

Rapid services explored

Explosion in demand for rapid grocery services should be something that all grocery retailers consider their response to. Demand for these services looks at triple over the next five years.

Whilst these services are unlikely to become a significant threat to the main channels for grocery retailers; They should certainly have them on their radar as they do present a genuine threat to margins.

Firstly, baskets for rapid grocery services show a high proportion of high cash margin products such as fresh meat and completed meal solutions. Secondly, the service providers in this sector highlight consumers' ability to switch from groceries for the home to pre-prepared meals. Consumers are increasing the number of restaurant meals they consume via these services, ultimately hurting the supermarket's revenue.

Existing and well-funded online food-delivery service players like Delivery Hero and Deliveroo are also joining the race by launching dedicated Rapid Grocery services. Marketing tactics are expensive, often employing vouchers for first-time users of up to £15 (60% of an average shopping basket). Many start-ups have to offer their products at supermarket prices.

Delivery is by bike, e-bike, or scooter, within 10-30 minutes of an order being placed, for a fee of around £2 with no minimum order value.

GoPuff (who recently acquired UK's Dija & Fancy) reported an EBITDA of negative $150 million on $340 million in revenue (EBITDA margin: -45%).

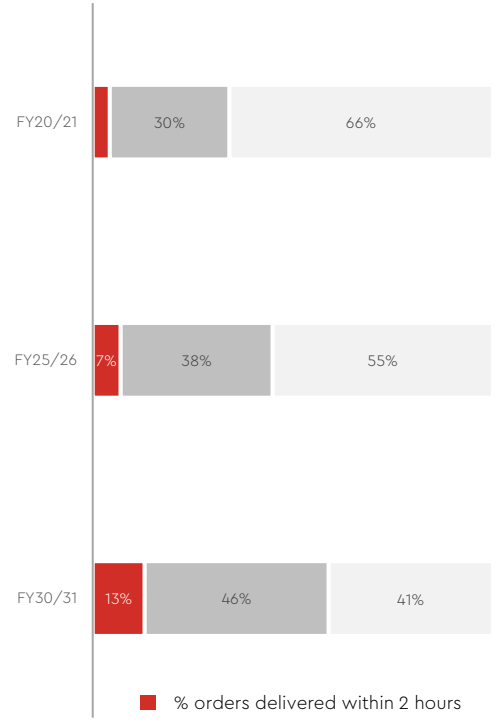
Gorillas are reportedly operating at unfavourable unit economics of -6%. Additional costs, such as overheads and technology, might push this number up significantly further.

The impact of fast delivery times (in most cases less than 15 minutes from order placement) contributes to poor unit economics. Riders typically complete one order per route before returning to the 'dark store'; achieving only three drops per hour is not unusual at peak times.

Rapid grocery delivery services also need to cover the cost of real estate, maintenance, utility costs, and management, replenishment staff & pickers.

Fig. 14
Projected growth for Rapid Grocery delivery services

Rapid grocery delivery services look set to represent over one in ten of all online grocery transactions by the end of the decade.



Closing statement

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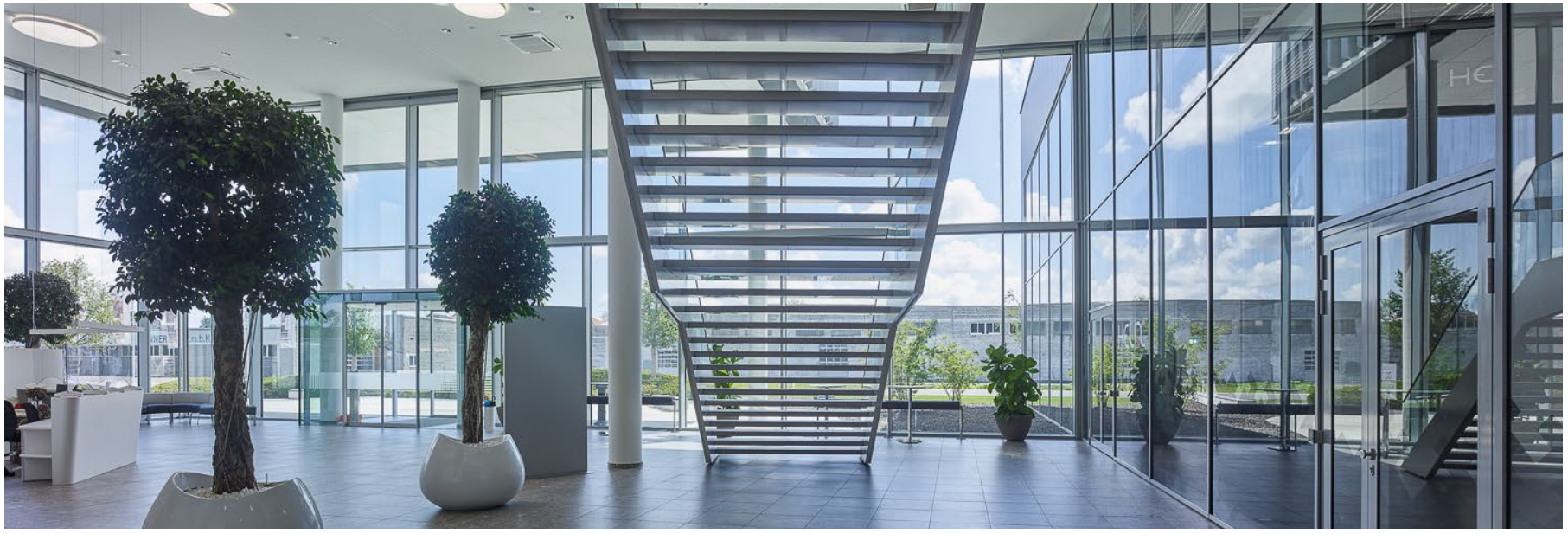
TGW's award-winning team of industry experts has decades of experience designing, managing, and implementing materials handling strategies for clients worldwide.

The team's approach combines proprietary research with expert management to deliver strategies and solutions which target superior performance and precise outcomes. The team believes that more predictable and repeatable performance can be achieved by thorough market research aimed at removing human behavioural biases in so far as possible. As markets evolve, these strategies are continuously refined and updated to adapt to dynamic market conditions and incorporate ongoing research.

James Osborn FCILT
Editor and VP fulfillment (holding)



Part of the series - MFC strategies for omnichannel grocery retail organisations

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Performance concepts

In explaining operating models and supply chain concepts we may refer to commonly used methods of calculating performance which are themselves not financial measures. These measures have been defined or specified in the applicable recognised accounting standards (or in other applicable regulations).

For each of these we offer the following definitions:

LPM label	Calculation	Information content
Overall Equipment Effectiveness - OEE	Maximum OEE means 100% Quality (only Good Parts), 100% Performance (as fast as possible), and 100% Availability (no Stop Time).	In supply chain concepts, often the goal of the solution is referred to as a high OEE, meaning that overall the system is offering a blended combination of throughput performance with quality.
Overall Warehousing Rate - OWR or DWR (Direct warehousing rate) - May also be referred to as UPMH	Total units processed into the distribution network, plus total units dispatched, divided by the total number of variable work hours deployed to achieve the work.	The highest level of performance measurement in a logistics network concept is the amount of product that is passed through the network for each hour spent overall in the supply chain. Our definition excludes fixed costs of operating a supply chain business (rent, rates and non-operational labour charges).
Cost / income ratio (%)	Calculated as operating expenses divided by operating income before credit loss expense or release.	This measure provides information about the efficiency of the business by comparing operating expenses with gross income.
Net profit growth (%)	Calculated as the change in net profit attributable to shareholders from continuing operations between current and comparison periods divided by net profit attributable to shareholders from continuing operations of the comparison period.	This measure provides information about profit growth in comparison with the prior period.

Abbreviations frequently used in our reports

A	
3PL	Third Party Logistics
4PL	Fourth Party Logistics
ABC	Activity Based Costing
ABS	Asset-backed securities
ABM	Activity Based Management
A-IRB	Advanced internal ratings-based
AIV	Alternate investment vehicle
AMO	Advanced Measurement approach
AoA	Articles of association
AOM	Advanced Order Management
APM	Alternative Performance Measure
API	Application Programming Interface
APS	Advanced Planning System
ASF	Available stable funding
AT1	Additional tier 1
ATP	Available to Promise
AuM	Asset under management
B	
BOL	Bill of Lading
BOM	Bill of Materials
BPR	Business Process Reengineering
C	
CAC	Customer Acquisition Cost
CAGR	Compounded Annual Growth Rate
CCAR	Comprehensive Capital Analysis and Review
CCR	Counterpart Credit Risk
CET1	Common Equity Tier 1
CFC	Central fulfillment Centre
CI	Continuous Improvement
CMI	Co-Managed Inventory
CMBS	Commercial mortgage-backed security
C&ORC	Compliance & Operational Risk Control
CPFR	Collaborative Planning and Forecasting Replenishment
CPH	(equipment) cycles per hour
CRM	Customer Relationship Management or Credit Risk Mitigation or Comprehensive Risk Measure.
CRO	Conversion Rate Optimisation
CRP	Capacity Requirements Planning
CRR	Capital Requirements Regulation
CST	Combined Stress Test
D	
DC	Distribution Centre
DMAIC	Define. Measure, Analyise Improvement, Control
DRP	Distribution Resources Planning
E	
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation
ECR	Efficient Customer Response
EDI	Electronic Data Interchange
EOQ	Economic Order Quantity
EPS	Earnings per share
ERP	Enterprise Resource Planning
F	
FAK	Freight All Kinds
FEFO	First Expire First Out
FEM	European Federation of Materials Handling
FIFO	First in First Out
FTL	Full Truckload
FTZ	Free Trade Zone
FVA	Funding Valuation Adjustment
FVOCI	Fair value through other comprehensive income
FX	Foreign exchange
FY	Fiscal Year
G	
GDP	Gross Domestic Product
GVA	Gross Value Added
GVW	Gross Vehicle Weight
H	
HQLA	High Quality Liquid Assets
I	
IHC	Intermediate Holding Company
IMA	Internal Model Approach
IMM	Internal Model Method
IRC	Incremental risk charge
IRR	Internal Rate of Return
J	
JIT	Just-In-Time
K	
KPI	Key Performance Indicators
KRT	Key Risk Taker
L	
LAS	Liquidity-adjusted stress
LCR	Liquidity coverage ratio
LIFO	Last In First Out
LO/LO	Lift-on/Lift-off
LTL	Less than Truckload
LTV	Loan to value
M	
M&A	Mergers & Acquisitions
MFC	Micro fulfillment Centre
MPS	Master Production Schedule
MRO	Material Repair and Overhaul
MRP	Material Requirement Planning
MRT	Material Risk Taker
MTTF	Mean time to failure
MTTR	Mean time to repair
N	
NAV	Net asset value
NDC	National Distribution Centre
NIFO	Next In First Out
NII	Net Interest Income
NPV	Net present Value
NVA	Non-Value adding
NVOCC	Non-Vessel Operating Common Carriers
O	
OEE	Overall Equipment Effectiveness
OCA	Own Credit adjusted
OMS	Order Management System
OS&D	Over, short and damaged
OWR	Overall Warehouse Rate
P	
PFE	Potential Future Exposure
PIT	Point in Time
P&L	Profit and Loss
POS	Point of Sale
POD	Point of Delivery
POE	Point of Entry
Q	
QR	Quick Response
QRRE	Qualifying revolving retail exposures
R	
RBC	Risk based capital
RbM	Risk based monitoring
RDC	Regional Distribution Centre
RFID	Radio Frequency Identification
RMR	Retail Management Replenishment
RTV	Retail Management Replenishment
S	
SA	Standardised approach
SaaS	Software as a Service
SCE	Supply Chain Execution
SCM	Supply Chain Management
SCP	Supply Chain Planning
SKU	Stock-Keeping Unit
SICR	Significant increase in credit risk
SRM	Specific Risk Measure
T	
TBTF	Ro big to Fail
TLAC	Total loss absorbing capacity
TMS	Transportation Management System
TOFC	Trailer on Flatcar
TTC	Through the cycle
TQM	Total Quality Management
U	
UFC	Uniform Freight Classification
UPMH	Units per man hour
V	
VaR	Value at risk
VA	Value Adding
VCS	Value Creation System
VMI	Vendor Managed Inventory
W	
WIP	Work in Process
WMS	Warehouse Management System

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