STIVEN CATALYST

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MANAGEMENT REVIEW

Management without theatre.



OPERATIONS

THE WAIT THE CUSTOMER FEELS

A baggage hall where a longer walk ended the complaints, bank customers timed on video, eight propositions on how waits feel, a newsboard and a wait clock, a waiting room where people felt forgotten, and a check at the desk.

52% was the average overestimate of the wait by 277 bank customers whose real wait was timed on video: 5.1 minutes felt, 4.2 measured.

KATZ & MARTIN, 1989

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NO. 110 · OPERATIONS

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Operations measure the wait with a clock. The customer measures it with a mood: two minutes can feel like nothing or like forever. This issue is about the second measure, and about what changes it when the first cannot be shortened at once.

In a baggage hall, complaints stopped once the walk was longer and nobody watched others leave first. In a bank, short waits were overestimated most. Maister's eight propositions and Larson's fair queue explain why. A newsboard made the wait more interesting; a wait clock made it more accurate. In an emergency unit, feeling forgotten made the wait feel longer, whatever the minutes. A wait check at the desk closes the issue.

Stiven Janaqi EDITOR · STIVEN CATALYST

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HOW TO READ THIS ISSUE

Figure
Every figure has its source and year at the foot of its page.

Our reading
Where the editor interprets rather than the research, it says so.

Practice
The steps and the card are proposals to try, not research results.

COVER STORY

A longer walk to the bags

Richard Larson of MIT retells a case from Houston. Passengers from the early morning flights complained about waiting for their bags. The airline hired more handlers until no bag took longer than eight minutes, the industry standard. The complaints went on.

1 + 7
minutes: the walk to the carousel, then the wait at it

6
minutes of walking after the change: arrival further out, the farthest carousel

Observers found that passengers with only hand luggage went straight to the taxis. Those at the carousel spent seven minutes watching people who had left the plane after them start their day first. Once the walk was longer, complaints fell to nearly zero.

OUR READING

The clock was within standard. What hurt was the order: seven minutes of being overtaken. Larson calls it a slip.

Source: Richard C. Larson, Operations Research 35(6), 1987

Larson (1987), Operations Research, an essay he calls speculative; the case is Martin's (1983), which the editors did not read, from the 1980s and without a later wait at the carousel. Larson defines a slip as being served after someone who joined later.

THE NUMBERS

Measured and felt

In 1989 Karen Katz and Blaire Martin, two of Larson's students, filmed the entry and exit of the teller line in a busy Boston bank branch and asked every third customer how long they had waited. Each answer was matched to that customer on the tape: 277 pairs of a felt and a measured wait.

AVERAGE WAIT IN THE TELLER LINE, MINUTES, BY PHASE OF THE STUDY (1989)



Waits under a minute were mostly not felt as waits. Answers clustered at five and ten minutes: 25% said exactly five. In the usual line, waits under four minutes were overestimated by 98% on average, those of four to twelve by 18%. A reasonable wait, customers said, was 5.9 minutes.

OUR READING

The shortest waits are felt as the most inflated. A target set in minutes is met on the clock and can still be missed in the customer's head.

Source: Karen L. Katz & Blaire R. Martin, master's thesis, MIT Sloan School of Management, 1989

Katz & Martin (1989), MIT master's thesis; one branch, three phases of three days each, February–March 1989; customers who did not wait were not asked. Measured waits differed between phases. Overestimates are the average of each customer's own. Utilisation and queue length are in Volume 5 of the treatise, Little's law in No. 58.

THE MODEL

Eight propositions on how waits feel

David Maister starts from a formula: satisfaction equals perception minus expectation. Both can be managed. He then sets out eight propositions on what makes the same minutes feel longer, meant to be tested rather than taken as proven.

01	**Empty time**	feels longer than occupied time, best occupied with something tied to the service
02	**Before it starts**	the wait feels longer than once service has begun
03	**Anxious, uncertain, unexplained**	waits feel longer than calm, known, explained ones
04	**Unfair**	waits feel longer than equitable ones: someone cutting in
05	**Value and company**	people wait longer for what they value; alone feels longer than in a group

Waiting in ignorance, Maister adds, breeds irritation and rudeness towards staff. HSE describes a housing department that took down its protective screens and gave people comfortable waiting areas and better information on delays; tension and violent incidents fell.

Sources: David H. Maister, in J. A. Czepiel, M. R. Solomon & C. F. Surprenant (eds.), The Service Encounter, Lexington Books, 1985; Health and Safety Executive, 2006

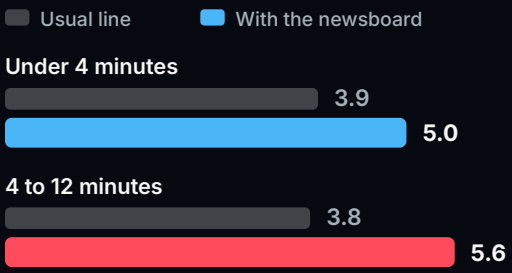
Maister (1985), in The Service Encounter; the eight propositions shortened and grouped into five rows by the editors. They rest on examples, not measurements. HSE's housing department is a case in INDG69 (2006), with no figures. Aggression from customers is in No. 109.

WHAT THE RESEARCH SAYS

A newsboard and a wait clock

Katz and Martin tested two of Maister's propositions in the same branch. In the second phase, two electronic boards above the tellers showed news and weather. In the third, a sign at the entrance to the line gave the expected wait, updated every few seconds.

HOW INTERESTING THE WAIT WAS, 1 (BORING) TO 10, BY MEASURED WAIT (1989)



The board did not change how long the wait seemed, but it made it more interesting; satisfaction moved up, not significantly. The clock cut the felt wait for those who waited four to twelve minutes from 7.7 to 6.7, closer to the measured 6.9, but satisfaction did not rise, and more people seemed to look in and leave.

OUR READING

Filling the time and announcing it do different jobs. One makes the wait easier to bear, the other makes it easier to judge, and an exact number invites a race against the clock.

Source: Karen L. Katz & Blaire R. Martin, master's thesis, MIT Sloan School of Management, 1989

Katz & Martin (1989); only customers who noticed the board (89) or the clock (72) are counted. The interest gains had p = 0.086 and 0.021; the clock effects were borderline. A new light system ran in all phases, which the authors call their main source of error. Satisfaction was near the top of the scale (9.1 of 10).

HOW IT IS MEASURED

The clock and the feeling of being forgotten

In Geneva's outpatient emergency unit, Hervé Spechbach and colleagues took the time each of 509 patients saw a doctor from the hospital system and set it beside a questionnaire. The measured wait averaged 78 minutes; patients called 65 minutes the longest reasonable wait.

53.2%
said the nurses had given them no waiting time

23%
had felt forgotten; those who had not had three times the odds of calling the wait very short

01	**Two stamps**	arrival and first contact, from the system, per customer
02	**The felt wait**	“How long did you wait?” in minutes, beside the stamps
03	**Told, forgotten**	were you given a wait; did you feel forgotten

Source: Hervé Spechbach, Jessica Rochat, Jean-Michel Gaspoz, Christian Lovis & Frederic Ehrler, BMC Emergency Medicine 19, 2019

Spechbach et al. (2019), BMC Emergency Medicine; December 2015 to March 2016, French-speaking patients only, an untested questionnaire, no response rate. The odds ratio of 3.0 compares patients who disagreed that they felt forgotten with those who were neutral. The rows are the editors' proposal.

TOOL OF THE ISSUE

The wait check at the desk

A short check whenever a line forms at the desk, by the person who runs the shift. The Guest Complaints tool has a category for the check-in wait; complaints logged there show when lines form and how they end.

01 The line start time, how many, why: a flight, a group, one long case

02 Everyone seen each person greeted, so no one waits unnoticed

03 An honest estimate a time and a reason, never “in a moment”

04 One fair order one line where possible; any priority said aloud

05 Time with a use what the guest can do now: a form, a question answered

06 Work in view every open position serving; side tasks out of the guests' sight

Sources: David H. Maister, in J. A. Czepiel, M. R. Solomon & C. F. Surprenant (eds.), The Service Encounter, Lexington Books, 1985; Richard C. Larson, Operations Research 35(6), 1987; Karen L. Katz & Blaire R. Martin, master's thesis, MIT Sloan School of Management, 1989

The card is the editors' proposal, built on Maister (1985), Larson (1987) and the suggestions of Katz & Martin (1989), who saw customers annoyed by unstaffed windows. It has not been tested. Wait clocks are left out: in the bank, an exact number did not raise satisfaction.

Open the tool: Guest Complaints stivencatalyst.com/tools/guest-complaints/

SOURCES AND METHOD

Every figure has a source.

The figures in this issue come from the sources below. The year shows how recent each one is.

Perspectives on Queues: Social Justice and the Psychology of Queueing
Richard C. Larson, Operations Research 35(6), 1987
https://doi.org/10.1287/opre.35.6.895

Improving customer satisfaction through the management of perceptions of waiting
Karen L. Katz & Blaire R. Martin, master's thesis, MIT Sloan School of Management, 1989
https://hdl.handle.net/1721.1/37703

The Psychology of Waiting Lines
David H. Maister, in J. A. Czepiel, M. R. Solomon & C. F. Surprenant (eds.), The Service Encounter, Lexington Books, 1985
https://davidmaister.com/articles/the-psychology-of-waiting-lines/

Violence at work: a guide for employers (INDG69, rev)
Health and Safety Executive, 2006
https://www.hse.gov.uk/pubns/indg69.pdf

Patients' time perception in the waiting room of an ambulatory emergency unit: a cross-sectional study
Hervé Spechbach, Jessica Rochat, Jean-Michel Gaspoz, Christian Lovis & Frederic Ehrler, BMC Emergency Medicine 19, 2019
https://doi.org/10.1186/s12873-019-0254-1

EDITORIAL METHOD

Each figure was checked for its year, its publisher and what it measures, in the full text where it could be opened. A source read only in a summary, an abstract or excerpts is marked “via”. A figure not confirmed in what was read is marked so on its page, or left out. The editor's interpretation is marked “Our reading”.



MANAGEMENT REVIEW

Management without theatre.

Every issue, one management question, checked against the best research.

ALL ISSUES

stivencatalyst.com/magazine/management-review.html

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Edited by Stiven Janaqi, who answers for it; “the editors” in this publication means him. Its texts, translations, layout and the checking of figures against their sources are done in working sessions with Claude, an AI model by Anthropic.
stivencatalyst.com/how-this-is-made.html