

# Multimedia Contact-Center Simulations Improve Hiring Accuracy

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Contact centers help solve consumer demand for immediate access to information, technical support, and the latest products or services. The majority of contact centers use advanced technologies to connect customers with the most appropriate company representatives. Although centers typically place representatives into jobs that emphasize a particular skill set, such as customer service or sales, nearly all of these jobs require representatives to interact with an assortment of customers while using a computer to access information necessary to provide assistance. Contact centers pressure representatives to move quickly from one customer to the next and track almost every aspect of performance electronically. Constant pressure, continuous monitoring, and an endless line of customers can overwhelm unprepared representatives and may lead to undesirable and costly outcomes, such as absenteeism, turnover, and dissatisfied customers. Many centers have responded to these consequences by adopting multimedia simulations to more rigorously evaluate applicants' potential to handle the job(s) before making hiring decisions.

## INDUSTRY BACKGROUND

A contact center is a physical or virtual environment that uses telephony and digital-engagement technologies to connect company

representatives with current and prospective customers. Ford Motor Company, in partnership with AT&T, opened what may have been the first contact center in the 1960s to streamline a court-ordered vehicle recall. Representative jobs in these early centers were highly structured and monitored closely by management.

The influx of electronic products into the consumer market during the 1970s and 1980s forever changed the nature of customer inquiries and representatives' jobs. Consumers flocked to shelves filled with modern, affordable electronics, such as pocket calculators and home computers. The sophisticated, less intuitive nature of many of these products thrust contact-center representatives to the forefront of technical support. The shift in consumer behavior caught many centers off guard—in terms of leadership, representative capabilities, and technological infrastructure—so customers frequently endured long wait times and poor customer service.

During the 1990s and 2000s, the contact-center industry grew at an unprecedented rate domestically and abroad. The growth reflected, at least in part, intense competition among companies to deliver a superior customer experience more quickly and inexpensively. Transocean fiber-optic cables facilitated global expansion by providing a conduit to connect offshore contact centers seamlessly with US-based customers. The

improvements in technology and infrastructure allowed companies to capitalize on the relatively low-cost, highly skilled workforces in developing countries like India and the Philippines.

Despite technological advancement and growth, the contact-center industry remains plagued by command-and-control management practices that marginalize autonomy and alienate workers. Research shows that flexible, autonomous work environments produce better performance than autocratic environments,<sup>1</sup> and high-involvement work practices generate lower attrition and higher sales than standardized processes.<sup>2</sup> The results suggest that representatives are more engaged in work environments that allow for

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independence and collaboration. Nevertheless, far too many centers continue to rely on outdated management practices that resemble a modern form of scientific management.

## **COMPETENCY PROFILES OF FRONTLINE JOBS**

Virtually all customer-facing contact-center jobs share a common set of features. Representatives in these jobs rely on a great deal of procedural knowledge and rote memorization to respond to myriad customer issues quickly and accurately. Adding to the complexity is that jobs and processes change frequently with little or no advance notice. Frontline employees perform multiple tasks

simultaneously, such as communicating with a customer while searching for account or production information, while their performance is monitored for accuracy, speed, and customer engagement among other performance indicators. Workers deal with a variety of customers whose demeanors range from warm and friendly to hostile and confrontational with virtually no time to recuperate between calls. Most of these jobs are scripted and routine and do not give representatives the ability to make decisions independently. The emotional and mental demands of these jobs underlie a variety of withdrawal behaviors, including absenteeism and attrition.

Despite what we know about the tasks representatives actually perform on the job, there is a surprising lack of detailed, publicly available information on the specific competencies representatives must possess to succeed. In an attempt to close this critical knowledge gap, my colleagues and I created a survey to capture job-specific ratings from contact-center experts on the importance of more than 50 competencies. The current data warehouse includes ratings on over 100 contact-center jobs. The ratings were completed by over 3,000 experts (e.g., high-performing incumbents, supervisors, trainers, operations managers, and center directors) representing 16 countries.

Our research reinforced the diversity and breadth of requirements of common contact-center jobs.<sup>3</sup> We identified 35 important competencies across the following six jobs: service, inbound and outbound sales, support, retention, and collections. The jobs shared 15 universal competencies (e.g., compliance, composure, integrity, and tact) that collectively reflect personal responsibility, effective communication, emotional control, and comfort with change, technology, and

simultaneous work activities. The remaining 20 competencies generally aligned with a specific job (e.g., persuasiveness in outbound sales jobs) or environment (e.g., autonomy in home-based jobs). On one hand, the universal competencies help us understand why some contact-center veterans claim that a good frontline representative can switch seamlessly between contact-center jobs while performing at a high level. On the other hand, the job-specific competencies help explain why those industry insider claims often prove false, especially when a representative is lacking one or more key competencies essential for success in a specific job (e.g., conflict resolution in a retention job).

## **HIRING HIGH-CALIBER FRONTLINE REPRESENTATIVES**

The most effective hiring processes are built on solid job analysis; empirical validation (i.e., the study reflects a criterion-related design) of a battery of well-designed tests and assessments that measure essential knowledge, skills, abilities, and personality characteristics; and continuous post-implementation reviews to evaluate the assessments' performance. In my experience, most contact centers do an adequate job measuring knowledge, abilities, and personality characteristics, but the majority of them miss the mark when it comes to evaluating candidates' job-relevant skills.

Three essential skills (computer navigation, keyboarding, and multitasking) stand out among the 35 contact-center competencies discussed earlier. Nearly every frontline contact-center job requires representatives to use a computer during training and on the job, making computer-navigation skill a bona fide occupational qualification.

Computer-navigation skill reflects an individual's proficiency using a keyboard, mouse, and software to obtain information necessary to support a customer. Representatives must also use a keyboard to enter text and other information quickly and accurately, which makes keyboarding another necessary qualification. However, unlike traditional typing skill, which measures a person's speed inputting grammatically correct prose, keyboarding skill concerns how quickly a person is able to input small text clusters such as a person's name or short, abbreviated notes that describe the nature of the customer's inquiry. Finally, the most difficult skill to measure, and arguably the most important, is multitasking. A representative's skill performing multiple activities well at the same time is, according to many industry experts, essential to optimal contact-center performance.

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Representatives who struggle to perform multiple activities concurrently may have difficulty achieving the aggressive performance thresholds required by many centers.

Hiring and retaining representatives with the qualities needed to achieve long-term success creates a significant competitive advantage for all organizations. The most effective way to identify candidates with the greatest likelihood of success is to use a battery of complementary assessments to measure the whole person against the knowledge, skills, abilities, and personality characteristics essential for successful job performance. Until recently, however, a lack of reliable,

valid contact-center skills assessments left a noticeable void in the hiring process.

## MULTIMEDIA SIMULATIONS

Multimedia software platforms, like Adobe® Flash®, paved the way for a new breed of interactive assessments. These new assessments transformed the role of a job candidate from a passive observer answering a series of questions to an active player capable of using a variety of skills and capabilities to influence assessment results. Contact-center simulations emerged in the late 1990s or early 2000s, making them one of the first types of commercially available multimedia assessments. These simulations equipped contact centers with the ability to use a realistic, accurate prehire assessment to more fully vet applicants' job skills before making a hiring decision.

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Surprisingly few scientific articles examining contact-center simulations are available in the public domain. Publishers often invest tens of thousands of dollars creating a unique, interactive assessment experience that has the potential to create a significant competitive advantage. Rather than sharing design, psychometric, and validation research via the traditional publication channels, most publishers have opted to keep details of their contact-center simulation cloaked in a layer of secrecy. The unfortunate consequence is that the scientific community has had little opportunity to weigh in on the benefits,

drawbacks, and implications of multimedia contact-center simulations. Nevertheless, we can glean some insight from the few published studies.

The earliest work on contact-center simulations came from research at AT&T during the late 1960s and early 1970s. AT&T scientists built the first interactive simulation to study customer representatives and telephone operators.<sup>4</sup> Prior to completing the simulation, participants received training on how to use job aids and equipment to perform essential job duties. The actual simulation began when participants received a phone call from an actor playing the part of a customer, with the participant using a variety of tools, aids, and equipment to manage the customer engagement while a group of raters observed participants and evaluated their performance. Reflecting the time and cost associated with conducting these simulations, the AT&T team used the simulations to evaluate the effectiveness of training programs rather than as an applicant-screening tool. However, research showed that a role play based on tasks performed by service representatives significantly predicted posthire training and on-the-job performance.<sup>5</sup>

Two more recent studies explored the predictive accuracy of computer-based contact-center simulations. The first study<sup>6</sup> required candidates to use a computer to navigate between multiple databases while handling a fictitious customer call, and trained observers rated candidates' performance. The simulation's scores predicted job performance significantly. The second study<sup>7</sup> may be the most comprehensive published review on multimedia contact-center simulations to date. In this review, a colleague and I evaluated a contact-center simulation's accuracy predicting average handle time, customer

satisfaction, quality assurance, and sales across 34 studies with a combined sample of nearly 6,500 people. The results illustrated the simulation's ability to significantly predict each of the four key performance indicators. In fact, the magnitude of the results suggested that multimedia contact-center simulations are one of the best available predictors of contact-center representative success. Unlike the previous studies, however, the multimedia simulation featured in our review relied on automated, electronic scoring rather than trained raters.

These published studies can be summarized in terms of three points. First, it is possible to create interactive simulations that accurately measure important aspects of the job, but doing so requires a significant investment in terms of time and resources. Second, despite job complexity, applicants (even with little or no experience) can learn to complete a realistic contact-center simulation with proper training. Finally, results from empirical studies suggest that contact-center simulations predict posthire training and job performance as well or better than all other known predictors, including personality assessments and cognitive-ability tests.

## SIMULATION DESIGNS

A contact-center simulation's value depends in large part on its ability to completely immerse a candidate into the job. Achieving this level of fidelity requires input from industry experts, organizational scientists, graphic designers, script writers, instructional designers, quality-assurance professionals, and job candidates to ensure the simulation captures a job's essential duties accurately. The best contact-center simulations are intuitive and easy to use, measure relevant skills

accurately, and resemble the job for which they are intended to forecast performance. Indeed, there are four common job-specific types of contact-center simulations.

1. *Customer-service simulations* are the most common type of contact-center simulation. These simulations usually require applicants to respond to general customer inquiries using a variety of databases while dealing with different types of customers, distractions, and time pressure.
2. *Sales simulations* embed applicants into an inbound or outbound contact-center environment to measure core contact-center and sales skills. Scenarios allow applicants the opportunity to position an offering to a variety of customers. In addition to foundational contact-center skills (e.g., keyboarding, computer navigation, and multitasking), these simulations may measure an applicant's effectiveness probing the customer to understand needs, positioning a sales offering, and overcoming resistance, as well as the skill to close a sale.
3. *Collections simulations* evaluate a candidate's skill managing a potentially emotionally charged customer encounter to secure payment for a past-due debt. These simulations may require applicants to establish personal credibility, create rapport, gain agreement on the debt that is owed, negotiate a payment plan, overcome resistance, and secure a payment plan and schedule.
4. *Digital-engagement simulations* are one of the newest types of tools to enter the market. These types of assessments evaluate an applicant's skill to perform functions required by customer chat and e-mail-based programs. Digital-engagement

simulations might measure applicants' skill communicating with customers via written media, customer-service orientation, sales skill, and basic contact-center skills.

Simulation design, regardless of type, is a painstaking process that proceeds through many stages. The time it takes to complete development varies based on myriad factors (e.g., scope, interactivity, complexity, goals, resources, and technology). In my experience, however, a moderately complex contact-center simulation can be designed, built, validated, and released in 8 to 12 months at a cost of \$250,000 to \$500,000.

## BEWARE OF IMITATION SIMULATIONS

The talent-assessment market is expanding quickly, bringing with it new opportunities and risks. New investment from large compa-

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nies and private-equity firms is spawning an advent of companies that hold the potential to invigorate the talent-assessment market with fresh, creative ideas. However, among the legitimate, reputable start-ups exists some companies creating assessments that resemble simulations on the surface but lack the internal control mechanisms and complex scoring algorithms necessary to deliver the predictive accuracy that should be expected from a simulation. I refer to these fake simulations as "situimulations" because they represent nothing more than quasi-interactive situational judgment tests.

The difference between these two types of assessments is that a simulation re-creates an actual contact-center job, whereas a situimulation is primarily based on pop-up questions and vignettes. A true multimedia simulation requires applicants to perform a fictitious contact-center job, complete with navigational controls and diverse customer interactions, while sophisticated technology monitors every aspect of an applicant's performance. It is sometimes difficult for HR professionals to discern the difference between a situimulation and a real simulation based solely on look and feel, so it is paramount to ask detailed questions and request technical documentation to more fully understand how the tool works, what it measures, and its underlying psychometric properties.

## CASE STUDY: VALUE OF A SIMULATION IN TELECOMMUNICATIONS

The competition to find and keep customers in the highly competitive telecommunications industry is intense. Consumer behavior is often influenced more by rational factors, such as plan costs or availability of certain devices, than brand loyalty. A company's ability to distinguish its brand depends on its success creating a passionate customer following, and creating customer loyalty begins with providing stellar service and support. This case study describes a company's (referred to as Telecom Z) attempt to enhance its contact-center service and support by hiring more highly skilled frontline representatives.

Telecom Z is at the intersection of old and new technologies. On one hand, its intricate network of wires, cables, fiber, and wireless technologies gives consumers uninterrupted, on-demand access to programming, information, and people around the world. On the

other hand, frontline representatives must endure inflexible processes, unfriendly policies, and weak leadership. These barriers have historically resulted in longer customer calls and fewer first-call resolutions. The company recognized the need to redesign its frontline hiring process using more modern screening tools.

Telecom Z conducted a large-scale study to evaluate a contact-center simulation's ability to improve call handling, problem resolution, and customer engagement. Results from an initial study involving more than 1,000 representatives supported the validity and utility of the simulation. In fact, based on the strength of the study's results, the company chose to incorporate the simulation into its contact-center hiring process.

Telecom Z has achieved significant performance improvements since implementing the simulation. In the 36 months after implementation of the simulation, Telecom Z contact-center representatives performed dramatically better on average handle time (33 percent improvement) and first-call resolution (52 percent improvement) while simultaneously driving down 180-day attrition (14 percent). These performance improvements represent 8,588 fewer hours of handle time and 16,200 fewer repeat calls per month. The business results indicate that the simulation is delivering a return on investment of approximately 3,300 percent.

Telecom Z's results make a solid, data-based case for using multimedia simulations, but no prehire tool can deliver results in a vacuum. The improvements at Telecom Z reflect a collaborative partnership in which data are continually analyzed and reviewed to ensure the simulation is delivering maximum value to the business. Moreover, regular, open communication about Telecom Z's business strategy helps

ensure the prehire screening process remains linked directly to the business.

## CONCLUSION

The need to more accurately hire people capable of performing well in contact-center jobs inspired the development of multimedia simulations. Modern simulations allow candidates to experience life as a contact-center representative while auditioning for a job from anywhere in the world. Amid the constellation of problems that plague contact centers, multimedia simulations represent a promising tool to help identify applicants who are capable of delivering lasting value.

## NOTES

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