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How to build a competitive advantage for your brand using generative AI

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Abstract Generative artificial intelligence—defined as AI-enabled technology that analyzes and learns from existing data and generates novel, humanlike content—has emerged as a revolutionary technology for firms seeking sustainable competitive advantage. We highlight the evolution of generative AI (GenAI) from generic, domain-tailored and collaborative systems, which are democratized and only offer demand-driven insights, to the next frontier of alternative perceptual systems. Managers who integrate current large language models into building their brand personae will empower their firms to experiment along the evolutionary journey. By embedding alternative perceptual systems into GenAI platforms, firms can achieve novel, interactive, and personalized insights that their competitors may find difficult to replicate.
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1. Introduction

Generative artificial intelligence (GenAI) continues to push the boundaries of what is possible in our lives, having sparked not just speculative discourse but rapid practical uptake (Kietzmann & Park, 2024). Indeed, a myriad of sectors and industries were awestruck by the launch of ChatGPT, a subcategory of artificial intelligence (AI) models, in November 2022, as this was the first time a large language model (LLM) developed for mass consumption could create novel outputs based on data on which it has been trained (Hackl, 2023). Through ever-evolving technological innovations, GenAI is poised to disrupt practically all aspects of how a firm operates (van Esch, 2024). At present, we are witnessing unprecedented use of GenAI in education, workflow optimization, and generating creative works (Hashmi & Bal, 2024; Retkowsky

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et al., 2024). Have you been dawdling amid this flurry of developments? You will regret it. A marathon it may be, so the journey ought to start now (Park et al., 2023).

But just as a Google search does not create a competitive advantage, neither does the open-access ChatGPT automatically confer an advantage for its users. That is, access to a GenAI is of no value unless managers are aware of how this technology can leverage other aspects of the firm's technology (Chui et al., 2022). Competitive advantage will belong only to those who devise increasingly sophisticated, strategic, and innovative ways to capitalize on this new technology. Specifically, in the ever-changing branding battleground, the winners will be companies that leverage the potential of GenAI in building their brand personae.

We begin by reviewing the democratization of GenAI, thereby highlighting that integrating GenAI into business operations does not automatically translate to sustainable competitive advantage. Next, by outlining both current applications of GenAI in building a brand persona and the evolving landscape in branding, we propose a key way for companies to build true, long-lasting competitive advantage: by using GenAI to fully reimagine who they are as brands (e.g., their brand personae) and how they speak to their target audiences, and then by leveraging GenAI to bring the brand personae to life. Finally, in offering a preview of how GenAI might evolve over time, we urge firms to infuse alternative perceptual systems into their GenAI branding strategies, and we propose several recommendations for managers seeking to navigate the GenAI maze.

2. A new era of brand persona

Amid the excitement surrounding GenAI since the release of ChatGPT, managers are understandably wondering: Is this just more hype, or is it a game-changing opportunity worth grasping? And if it is the latter, how does GenAI bring a competitive advantage for my business?

A firm's long-lasting success relies on a golden marketing principle: the voice of the brand. The voice helps communicate who the firm is—its personality, traits, aspirations, values, culture, and emotions—and portrays a memorable, relatable brand persona to its customers. In encouraging firms to curate a consistent and memorable voice, a brand persona humanizes the business and creates a story that the target audience can identify and connect with, thereby facilitating greater brand salience, nurturing trust, building rapport with consumers, and resulting in a competitive edge (Klass, 2023).

Consider the logos of companies like Apple, Nike, and Coca-Cola. What is the first thought that comes to mind when you see them? Innovation, excitement, optimism? When we come across such iconic logos, we don't jump to thinking about what products or services their associated firms offer; rather, we think of who we see and what characteristics the brand evokes. Crafting a brand's voice, when done properly, can be the difference between just another logo and a brand worth remembering and connecting with. At times, the voice of a brand can profoundly resonate with the target audience, as Nike's Just Do It campaign did, and similarly inspiring messages have played vital roles in establishing some of the world's most successful business empires.

GenAI is rapidly revolutionizing how companies express their voice, compelling managers to revisit their branding strategies. Traditionally, a brand's voice entailed unidirectional communication, whereby companies try to voice their personalities to their audiences. Brand voices have traditionally been expressed uniformly, no matter the customer, because it is simply impossible for marketers to truly understand the individuality of each customer. No two customers are identical; a 25-year-old male customer and a 65-year-old female customer may both be interested in purchasing a pair of Nike sneakers, but their motivations might wildly differ. But despite their diverse customer bases, firms have generally limited themselves to speaking to them with just one voice.

Now, imagine how powerful it would be if a firm could speak to each individual customer with a different voice that resonates with their unique characteristics, while at the same time staying true to what the brand represents (i.e., brand identity). What if managers could individualize communication messages and continue to learn, refine, and perfect the voices the brand speaks? After all, successful branding strategies lead to competitive advantage only when such communications reinforce the connections customers have formed with the brand (Keller, 2020).

With the advent of LLMs, GenAI is now at the vanguard, leading the transformative evolution that empowers brands to embrace multiple voices, engaging and speaking to all customers with a myriad of distinct languages (Taulli, 2023). In the era of GenAI, firms can finally speak with their target audience instead of speaking at them, and they can communicate their brand personae in unlimited ways. This shift from univocal to multivocal branding presents limitless opportunities for firms to reinvent and reinforce their brand personae, ultimately harvesting competitive

advantage. And those that fail to adapt will likely be left behind.

3. Leveraging GenAI for brand persona

In today's dynamic business landscape, establishing a strong and distinctive brand persona is paramount for companies seeking a competitive edge. The advent of GenAI has created new avenues for firms to build, fortify, and enhance their brand personalities in ways previously unimaginable (Phelan et al., 2023). At the core of any successful brand strategy lies the ability to communicate a unique and resonant personality. GenAI facilitates this by enabling companies to create tailored content that aligns seamlessly with their brand identities (Osadchaya et al., 2024). From crafting engaging blog posts to formulating compelling social media updates, GenAI empowers businesses to maintain a consistent voice across diverse platforms (Ooi et al., 2023). This content generation not only saves time and resources but also ensures that the brand persona remains cohesive and recognizable, an increasingly paramount consideration in the digital space where consumers are deeply interconnected with one another.

One of the key applications of GenAI in brand building is the deployment of chatbots and virtual assistants (Kamoonpuri & Sengar, 2023). These intelligent systems can be programmed to embody the brand's personality, providing a personalized and interactive experience for users. Whether addressing customer queries or facilitating sales, chatbots infused with GenAI contribute to a seamless and on-brand interaction, enhancing customer satisfaction and loyalty (Blümel et al., 2024).

In the realm of social media, GenAI serves as a valuable ally for companies seeking to understand and engage their audience. By analyzing social media trends and sentiment, businesses can leverage GenAI to tailor content that resonates with their target demographic (Kshetri et al., 2023). This not only strengthens the brand's connection with its audience but also positions it as attuned to evolving consumer preferences, a crucial factor in maintaining a competitive edge (Cui & van Esch, 2023).

Email marketing, another cornerstone of modern business communication, can also benefit significantly from GenAI (Verma & Kumari, 2023). By harnessing this technology, companies can automate the creation of personalized and relevant email content, ensuring that each communication aligns with the brand's persona. This not only streamlines marketing efforts but also enhances the effectiveness of campaigns by delivering messages that genuinely resonate with recipients.

Product descriptions, an often-overlooked aspect of brand communication, can be improved using GenAI (Ma & Sun, 2020). Companies can utilize this technology to generate product-related content that not only informs but also aligns with the overall brand narrative. This creates a holistic and immersive experience for consumers, reinforcing the brand persona at every touchpoint (Brakus et al., 2009).

Visual content, an increasingly vital component of brand communication, can also benefit from GenAI applications (e.g., Coca-Cola's Create Real Magic campaign). From image creation to video production, companies can leverage AI algorithms to ensure that visual elements align seamlessly with the brand's personality. This not only enhances the aesthetic appeal but also reinforces the brand identity in the minds of consumers (Roggeveen et al., 2021).

The evolution of a brand's persona is a natural process influenced by market dynamics and consumer behavior (Griskevicius & Kenrick, 2013). GenAI provides firms with the tools to monitor and adapt their brand personae over time. By analyzing audience feedback and staying attuned to market trends, companies can use GenAI to make informed adjustments, ensuring that their brands remain relevant and resonant in the face of changing consumer expectations (Kanbach et al., 2023).

In leveraging GenAI for brand personae, however, it is essential to strike a balance between automation and human oversight (Killoran et al., 2023). While AI systems excel at data-driven tasks, the nuanced aspects of brand communication require the creativity and intuition inherent in human decision-making. Regular reviews and refinements by human experts are crucial to maintaining authenticity and relevance in the generated content. As businesses navigate the evolving landscape of brand building, embracing the capabilities of GenAI is not just a strategic choice but a necessity for those seeking sustained success in today's highly competitive markets (Korzynski et al., 2023).

4. The dilemma: Competitive advantage goes beyond just taking the plunge

4.1. Examining GenAI applications with limited competitive advantage

At present, firms appear to be deploying GenAI in a very siloed approach, in response to the push-pull of

everyday business. This reactive, instead of proactive, response does not allow for a whole-of-business strategic initiative, thereby diminishing any possibility that the firm will gain much competitive advantage, even though some firms may recognize minor productivity improvements by deploying GenAI. When utilized without strategic consideration of unique values added, GenAI may merely help maintain a firm's brand persona, rather than enhancing and amplifying it; see Table 1 for GenAI applications with limited competitive advantage.

4.2. The democratization of GenAI

Generative artificial intelligence—defined as AI-enabled technology that analyzes and learns from existing data and generates novel, humanlike content—has emerged as a revolutionizing technology, offering diverse opportunities across various industries to boost firm performance (Dwivedi et al., 2023). As AI-enabled technology becomes easily accessible and widespread, businesses large and small can harness GenAI to drive innovation and to optimize customer experiences, operations, and productivity (Mondal et al., 2023; Sundberg & Holmström, 2024). But the democratization of GenAI, a consequence of the technology's increased accessibility, open and shared knowledge, and market saturation, is reducing its value as a competitive differentiator (Benbya et al., 2020).

The rapid advancement of AI-enabled technologies has created an era of extraordinary opportunities for firms (Jarrahi, 2019). GenAI, a subset of AI that enables the generation of creative content, was once able to bestow significant competitive advantage to early adopters (Bareis & Katzenbach, 2022), but this is no longer the case. With the prevalence of prebuilt AI platforms and

Table 1. GenAI application with limited competitive advantage

Function	GenAI applications	Potential avenues for competitive advantage
Insights and creativity	Typically based on generic, domain-tailored, and collaborative systems, and sometimes with the addition of information from the internet, GenAI can provide ideas and perspectives in terms of brand strategy, product development, and marketing efforts (Davenport & Mittal, 2022). However, such insights can be easily captured and deployed by a firm's competitors owing to the democratization of GenAI (Carvalho & Ivanov, 2024). Given the lack of differentiation in creative idea and insight generation, everybody is working from the same generic data sets, thereby resulting in limited competitive advantage (Epstein & Hertzmann, 2023).	Matching insights from GenAI with existing consumer sentiment pertaining to the focal brand can allow firms to strategically filter out ideas that fail to resonate with the target audience and to project a consistent brand persona.
Content creation	GenAI can be used to identify relevant and timely consumer preferences and to conduct sentiment analysis to identify trending topics across different platforms, such as blogs, vlogs, and social media posts (Dogru et al., 2023).	By capitalizing on firms' proprietary data, GenAI can be trained to mimic the firm's communication style and existing marketing materials to portray its intended brand personalities (Leone et al., 2021).
Customer contact	Interactions with consumers allow the firm to present a cohesive brand voice using chatbots, personalized email responses, and virtual assistants (Paul et al., 2023).	Based on individual user profile, brands can personalize their communication styles and curate individualized interactions for different audiences. By considering user input, GenAI can monitor online conversations and consumer sentiment to manage the firm's persona and to make necessary adjustments to it (Yadav & Vishwakarma, 2020). This allows for consistency across various marketing channels to maintain the firm's brand persona across different cultural contexts (Garvey et al., 2021; Kim et al., 2023; Ma & Sun, 2020).

systems, most firms find themselves in a rather saturated market in which it is tough to establish competitive advantage (Renieris et al., 2023).

Historically, AI-enabled technology was available only for the select few organizations with the resources to invest in its research, development, and implementation (Von Krogh, 2018). But advancements in AI-as-a-service platforms, cloud computing, and open-source frameworks have democratized the access to and thus use of GenAI. Consequently, even small-to-medium-sized firms now have access to state-of-the-art, AI-enabled technologies, leveling the playing field for firms of all sizes, irrespective of the sector (Hansen & Bøgh, 2021; Wilson & Daugherty, 2018).

Contributing to the adoption and democratization of GenAI is the availability of prebuilt AI-enabled frameworks and libraries of data (Sathianathan & Ray, 2023). Tech giants like Amazon, Google, Meta, and Microsoft, as well as international AI research institutions, have created various AI-enabled frameworks that are open-source or open-access, making it easier for firms to integrate GenAI without having to start from scratch. This easy accessibility gives firms the opportunity to quickly deploy AI-enabled technologies, which in turn reduces development time and costs (Ransbotham et al., 2017). Furthermore, AI-as-a-service models have emerged, enabling firms to leverage AI-enabled technologies such as GenAI without having to invest in hardware or hire AI experts (Gill et al., 2022). Moreover, these service providers, through user-friendly interfaces, enable businesses to integrate GenAI-enabled solutions seamlessly into their existing systems and processes, catering to the growing demand for AI-enabled solutions among businesses of all sizes and types (Chui et al., 2018; Sundberg & Holmström, 2023).

The democratization of GenAI has leveled the playing field, diminishing the disparity in competitive advantage between early adopters and latecomers (Mikalef & Gupta, 2021). With access to similar AI-enabled technologies, firms can adopt and replicate the same AI-driven strategic objectives as their competitors, thereby reducing the potential of GenAI alone to maintain sustainable competitive advantage (Kemp, 2023). Firms must therefore come to understand the evolution of GenAI to achieve a commanding competitive advantage. While an off-the-shelf, generic GenAI may offer some cost reductions, value differentiation and competitive advantage can only be achieved by developing GenAI-fueled branding strategies, which involves leveraging domain expertise, exploring diverse data sources (e.g., firms' proprietary data and consumer data; Wach et al., 2023), and deploying alternative perceptual systems (Ferraro et al., 2024).

Overall, the democratization of GenAI has revolutionized the business landscape, providing opportunities for firms big and small to harness its transformative potential. To prosper in this new era, firms must revisit the journey they have embarked on, look beyond the current state of GenAI, and embrace a comprehensive approach to competitive advantage, one that utilizes firms' proprietary data, consumer input, and alternative perceptual systems to harvest new competitive advantage through the firm's customer-centricity and unique value propositions. Knowledge of the evolution of GenAI not only helps managers better understand how users' and consumers' experiences and expectations evolve over time but also, and more importantly, empowers them to understand previous challenges and unsuccessful attempts, to identify trends and technological breakthroughs, and to craft future strategies aligning with consumer expectations and business goals. For example, while the prevalence of generic GenAI (Evolution 1) unleashed massive benefits, such as productivity boosts and cost reductions, firms can harvest more substantial and lasting competitive advantage by embracing domain-tailored, proprietary data (Evolution 2) and by collaborating with their target audiences (Evolution 3). As GenAI continues to mature, marked competitive advantage will likely stem from firms' abilities to draw unique insights from data and audiences to which their competitors are not privy.

The next evolutions of GenAI will further empower firms to reinforce and reinvent their brand personae, ensuring authentic and consistent brand messages and interactions with their existing consumers and prospects. By leveraging alternative perceptual systems to create an immersive sensory experience, firms can establish strong brand personae that resonate within their target audiences, which in turn cultivates brand loyalty, drives competitive advantage, and ensures long-term, sustainable growth.

5. Mapping your GenAI branding strategy along the evolution journey

5.1. Evolution 1: Generic GenAI

- *Key takeaway: Companies can unlock more relevant outputs via generic, online GenAI*

models; however, the lack of differentiation might hinder building competitive advantage.

GenAI, as exemplified by applications such as GPT-3 and GPT-4, represents a remarkable advancement in the realm of AI. This evolution of GenAI has already demonstrated textual responses that are essentially indistinguishable from human output; see Figure 1 for the evolution of GenAI. GenAI, while still in its infancy, has stirred up managers' interests in generating consistent, engaging content across all digital channels—including social media, emails, and chatbot interactions—while at the same time freeing up human employees for more strategic tasks. But GenAI models in Evolution 1 operate as generic systems and are trained on static data (e.g., data accumulated prior to a specific cutoff date). Despite their very humanlike outputs, models like ChatGPT remain in the preliminary stage of development and beta testing, which researchers and developers utilize as an experimental proving ground for refining GenAI models (LaGrandeur, 2021). Given this, ChatGPT and similar models have certain limitations. These models can exhibit biases, generate bland or boilerplate outputs, offer outdated facts, and may run afoul of ethical considerations, including by disseminating misinformation (Hannigan et al., 2024).

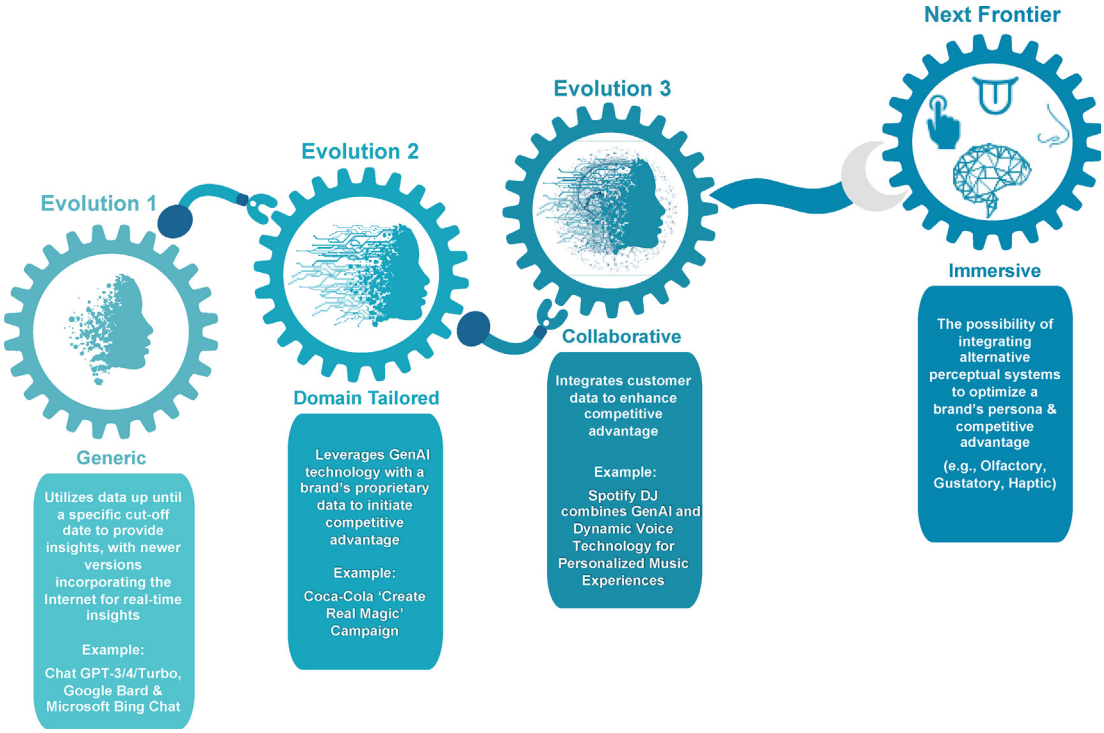
What sets GPT-4 apart from its predecessor and from many other models is its ability to access the internet. The model's access to up-to-date information opens an expansive array of opportunities. But this capability to access the internet does not seem to be the silver bullet to building lasting competitive advantage. While GPT-4 allows companies to produce more relevant and timely outputs, its performance still depends on its training data. Since the model is still dependent on the internet at large for its data, its outputs will likely reflect generic understanding. As a result, its responses may lack industry- or sector-specific expertise, and the model may struggle to produce unique insights that can differentiate a firm from its competitors (Solow-Niederman, 2019).

5.2. Evolution 2: Domain-tailored GenAI

- *Key takeaway: Companies that use proprietary data to add a personal twist can better establish a competitive advantage.*

Despite a surge in investment, continued iterations and innovations, and mounting applications for GenAI models, managers are witnessing a rapid decline in the marginal competitive advantage gained from capitalizing on GenAI. Is GenAI just another fad, like the metaverse? The metaverse

Figure 1. The evolution of GenAI



was the talk of the town last year, yet interest in it is already fading. Our take? GenAI is by no means a passing fad. However, to build lasting competitive advantage in conjunction with GenAI requires firms to go beyond embracing it; firms must also explore and exploit it by discovering what it does the best, which will allow them to progress from mere task automation to rethinking how GenAI can supercharge their brands.

The value proposition of GenAIs depends largely on the data they've been trained on. Existing GenAI models, such as GPT-4, can produce impressive and original responses, but they are still no more than excellent interpreters of existing data. Put differently, despite the illusion that companies leveraging GenAI are more innovative, GenAI has been merely reconstructing previous ideas that exist in the training dataset and repackaging them in seemingly novel fashion. Eventually, customers will likely grow frustrated at GenAI's homogenous, lifelessness responses derived from highly generic data. True innovation that leads to enduring competitive advantage, on the other hand, stems from firms' conscious incorporation of their proprietary data and institutional knowledge (Robertson et al., 2024).

Leveraging a firm's proprietary data and institutional knowledge is imperative to its capability to compete and innovate, and this cannot be truer than in today's volatile environment. *Proprietary data*—that is, data that are unique to a company and that cannot be easily replicated by another entity—have profound potential in building sustainable competitive advantage, whether the data are structured or unstructured, refined or raw, tangible or intangible (Davenport & Redman, 2020). Considering these data are exclusive to a company, proprietary data present an often-overlooked path for bringing value to firms. Moreover, ownership of proprietary data is the path of least resistance—a path that is low-risk, cost-effective, and easy to implement (Brewer et al., 2024).

As GenAI platforms and applications continue to mature, the message is crystal clear: Combining GenAI with proprietary data is not a luxury but a necessity. It allows companies to reinvent brand engagement, to improve customer interactions, to redefine customer experiences, and to completely transform the delivery of brand personae so as to initiate an enduring competitive advantage.

5.2.1. Coca-Cola's Create Real Magic campaign: Utilizing GenAI for marketing materials

Coca-Cola joined forces with OpenAI and Bain & Company to incorporate GenAI technology into its marketing operations. The Create Real Magic campaign leveraged OpenAI's GenAI technology to create original artwork and to engage consumers. The platform enabled digital artists worldwide to produce original artwork using Coca-Cola's creative assets (e.g., logos and the iconic polar bear), driving engagement and fostering creativity among consumers by allowing them to witness the creation process and to interact with the generated artwork. This immersive experience fostered a deeper connection between Coca-Cola and its consumers. The Create Real Magic campaign generated significant buzz and increased brand visibility. Coca-Cola is now exploring potential applications of GenAI in knowledge management, customer service, and point-of-sale material to initiate a competitive advantage.

5.3. Evolution 3: Collaborative GenAI

- *Key takeaway: In branding, managers should understand that the persona belongs to the brand, whereas the voices belong to customers.*

Compared with classic AI models, one of the most exciting potentials of GenAI lies in its ability to engage the masses. In Evolution 3, by making GenAI accessible to the public, firms can enable customers to include themselves in the brands' narratives, thereby amplifying the brand persona.

Thanks to supervised fine-tuning, reinforcement learning, and massive sets of customer data, such an integrative approach supercharges GenAI, making it better at listening to customers' voices, at refining and strengthening the company's own voices, and at curating a more memorable, salient brand persona that is worth connecting with (Ozmen Garibay et al., 2023).

Think of this evolution of GenAI as a brilliant copywriter with the superhuman ability to whisper into the ear of each individual customer in the voice they prefer to engage with. By collaborating with customers and drawing upon their preferences, firms can adjust their brand personae to suit. Through double-looped learning, firms can adjust their voices by leveraging customer data as an anchor, take customer data into consideration in their messaging, and amplify their personae (Abdelhalim et al., 2024).

5.3.1. Coca-Cola's Create Real Magic campaign: Utilizing GenAI for marketing materials

An innovative collaboration between Spotify DJ, a GenAI platform, and Sonantic, a dynamic voice technology tool, is creating unique, immersive,

and personalized music journey experiences for Spotify users. Spotify DJ analyzes user data, such as listening history, mood, and context, to generate music recommendations, DJ mixes, and playlists that resonate with each user and that feel more interactive and relatable, leading to increased user satisfaction and longer listening sessions. This integration ensures a smooth and natural transition between different content, creating a cohesive and enjoyable music experience for users. By embracing GenAI and dynamic voice technology, Spotify DJ enhances its competitive advantage in the music streaming industry. The platform sets itself apart by offering personalized and interactive music experiences that cannot be replicated by its competitors.

6. The next frontier in the GenAI evolution

The trouble with using GenAI is that anyone can do it, so firms need to find points of differentiation between themselves and their competitors. And excited managers must not fall victim to shiny-object syndrome, as mindlessly adopting GenAI will not automatically translate to competitive advantage (Mariani et al., 2022). Here is the harsh truth: GenAI is not, in itself, a game-changer. GenAI, like classic AI models, is only as good as the data on which it has been trained, so leading firms will enhance models by infusing them with proprietary data, key institutional knowledge, open customer data, and—eventually—alternative immersive perceptual systems. This progression can supercharge the potential of GenAI in unlocking true competitive advantage.

To illustrate, think of an activity crucial to companies: predicting the success of a marketing campaign in expressing a brand's persona. In Evolution 1, companies become intrigued by the potential to automate laborious, tedious tasks, thereby reducing costs. A company can use GenAI to gather and synthesize unstructured information, such as by scouring past and present marketing campaigns, vetting consumers' sentiments about them on social media, and identifying common themes among successful campaigns.

But ensuring long-lasting competitive advantage requires that companies reassess not only how brand persona can be communicated but also, and more importantly, what a meaningful brand persona is and what it entails. For such competitive advantage to come to fruition, firms must realize that everything counts as data. Brand assets like logos and mascots? Data. Consumers' live inputs, social media footprints, and interactions with companies? Data. This shift in mentality will empower firms to start asking more meaningful questions and to embrace the next frontier in the evolution of GenAI: alternative immersive perceptual systems.

In the ever-evolving landscape of AI, the trajectory of progress has been marked by continual innovation and groundbreaking developments (Berthon et al., 2024). As we stand on the precipice of a new era, the emergence of perceptual systems signals the next wave in the GenAI evolution (Lu, 2019; Zhang & Lim, 2022). Moving beyond traditional perceptual capabilities—visual ones in Evolution 2, and auditory ones in Evolution 3—these systems promise to usher in a paradigm shift, enabling machines not only to generate content but also to comprehend, interact with, and respond to the rich tapestry of alternative sensory input from the world around them (e.g., Olfactory, Gustatory, Haptic).

GenAI, renowned for its prowess in creating content, has transformed industries and revolutionized how we interact with technology to leverage competitive advantage. From natural-language processing to image and video generation, these systems have showcased the remarkable potential of machines to mimic humanlike creativity across diverse modalities (e.g., texts, images, and videos) and senses (e.g., visual and auditory senses; Patil et al., 2024). But the next frontier lies in endowing AI with greater immersive and perceptual capabilities, enabling it to understand and interpret the nuances embedded in the sensory inputs it receives (Puntoni et al., 2021).

Perceptual systems, at their core, are designed to grant machines the ability to perceive, comprehend, and interact with the world through a multitude of senses, akin to human perception (Treccani, 2021). Visual understanding, auditory processing, and even tactile sensitivity are domains where perceptual systems can excel. This represents a monumental leap from earlier stages (e.g., Evolution 1) of GenAI, which predominantly operated within the realms of data-driven tasks and content creation.

With respect to computer vision (e.g., Evolution 2), perceptual systems promise to elevate machines' understanding of visual information to unprecedented heights. These systems, equipped with advanced algorithms and neural networks, can not only generate images but also comprehend the content within them. This goes beyond mere pixel manipulation; it involves the development of machines capable of recognizing objects, understanding spatial relationships, and even discerning the emotional context of visual stimuli.

Moreover, perceptual systems encompass auditory sensations (e.g., Evolution 3), offering machines the ability to process and understand sound. Speech-recognition systems have long been a staple of AI applications, but perceptual systems take this a step further. These systems can not only transcribe spoken words but also discern intonation, emotion, and even background noises, mirroring the intricacies of human auditory perception (Nyatsanga et al., 2023). Tactile perception, often considered the holy grail of sensory capabilities, is also within the purview of perceptual systems. As technologies like haptic feedback and tactile sensors advance, machines equipped with perceptual systems can gain an understanding of touch and physical sensations (Zhu et al., 2020). This opens avenues for applications in robotics, healthcare, and virtual environments, where machines can interact with the physical world in a manner reminiscent of human touch.

The integration of perceptual systems into the fabric of GenAI holds profound implications for many industries, especially firms seeking true competitive advantage. In healthcare, these systems can facilitate more accurate diagnostics by analyzing medical images and recognizing subtle patterns indicative of various conditions. In autonomous vehicles, perceptual systems can enhance safety by enabling vehicles to comprehend and respond to complex traffic scenarios with a level of nuance previously unattainable. Furthermore, the advent of perceptual systems presents opportunities for more immersive and intuitive human—machine interactions, revolutionizing how a firm communicates its brand persona (Aydin & Nalbant, 2023). By activating alternative perceptual systems, GenAI allows firms to engineer immersive audio-visual experiences, thereby empowering consumers to associate the content with sounds, textures, and sensations on an individual basis. Through this multisensory approach, GenAI can activate sensory associations, stimulate emotions and memories among consumers, and subsequently, foster a more realistic, meaningful connection with the target audience. Imagine a world in which machines can not only understand spoken commands but also interpret the user's emotional state through facial expressions and tone of voice. This level of perceptual sophistication can lead to more natural and empathetic interactions with brands, fostering a deeper integration of AI into our daily lives and unlocking real competitive advantage.

But with the promises of perceptual systems come ethical considerations and challenges. Privacy concerns regarding the extensive sensory data these systems collect, the potential for biases in perceptual algorithms, and the need for robust security measures all underscore the necessity for a thoughtful and responsible deployment of this transformative technology. The integration of perceptual systems represents the next evolutionary leap in GenAI. As machines transcend the boundaries of content creation to embrace the richness of sensory perception, a new era will dawn in which AI is not just a creator but a perceptive and responsive entity. The potential applications are vast, ranging from healthcare to human—computer interaction, and while challenges loom on the horizon, the trajectory of progress promises a future in which perceptual systems will redefine the capabilities and impact of GenAI on firms and society.

7. Roadmap to navigate the GenAI maze

In the rapidly evolving landscape of technology, the integration of GenAI presents both challenges and opportunities for businesses seeking to enhance their brand personae and gain a competitive edge. Managers, as the orchestrators of strategic initiatives, play a pivotal role in navigating the complexities of GenAI evolutions to harness its transformative potential for brand development. This section delves into the managerial strategies required to leverage GenAI effectively.

Managers ought to begin by cultivating a deep understanding of GenAI and its applications in the context of brand development. Awareness of the technology's capabilities, ranging from creative ideation to content generation and perceptual systems, is foundational to making informed decisions. This understanding enables managers to assess how well GenAI aligns with the desired brand persona and how it can be strategically employed to outpace competitors in the market.

Strategic alignment is crucial in utilizing GenAI for brand development. Managers should carefully evaluate the unique characteristics of their brand and industry to identify areas where GenAI can enhance the brand persona. This requires a holistic understanding of the brand's identity, values, target audience and buyer persona, and market positioning. Through such strategic alignment, managers can ensure that GenAI initiatives are not isolated technological endeavors but integral components of a broader brand strategy (Ramaul et al., 2024).

Communication is paramount in conveying the brand's story and values. Managers should adeptly

communicate how GenAI is employed to reinforce the brand persona. This involves articulating the technology's role in content creation, customer interactions, and other brand touchpoints. Effective and transparent communication bridges the gap between technical complexities and consumer understanding, fostering a positive perception of the brand's innovative use of GenAI. Meanwhile, managers ought to analyze the implications of disclosing GenAI use on consumers' perception of brand authenticity and connection on a case-by-case basis.

Adaptability emerges as a key managerial quality in navigating GenAI evolutions. Given the dynamic nature of technology, managers must foster a culture of flexibility and experimentation within their teams. This adaptability allows the brand to stay ahead of the curve, continually refining its persona to resonate with evolving consumer preferences and technological advancements. On a related note, adaptability entails interdepartmental collaborations. Managers should facilitate cross-functional collaboration between marketing, IT, data scientists, engineers, ethicists, domain specialists, and creative teams. This collaborative approach ensures that GenAI initiatives are not confined to a single department but are integrated seamlessly into various facets of the organization, contributing to a cohesive and unified brand persona.

8. Concluding remarks

Managers must consider the competitive landscape and position GenAI as a strategic tool for managing a brand's persona to gain a competitive advantage. By staying informed about industry trends and competitors' initiatives, managers can identify opportunities where GenAI can differentiate the brand from its competitors. Whether through personalized customer experiences or innovative marketing campaigns, GenAI can be a powerful catalyst for setting the brand apart in a crowded and competitive marketplace. Nevertheless, GenAI itself is not a silver bullet. Owing to the increased accessibility of prebuilt AI platforms and systems, shared resources and knowledge, and the saturated market, firms have begun to realize that GenAI deployment does not automatically equate to marked competitive advantage. In contrast, harnessing the full potential of GenAI requires firms and managers to strategically deploy the technology, going beyond mere maintenance of the brand persona in order to proactively enhance and amplify it. By incorporating firms' proprietary data and user input, firms can create lasting competitive advantage by speaking to individual consumers in different yet coherent voices, all while staying true to their brand personae.

Ultimately, in navigating the evolving landscape of GenAI with finesse, managers hold the key to unlocking the potential of GenAI for enhancing brand personae and ensuring competitive advantage. By leveraging this transformative technology thoughtfully and strategically, businesses can not only shape a compelling brand persona but also gain a distinct edge in the competitive marketplace, securing long-term success and relevance.

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