

The HayWired HandShake Network

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A conceptual earthquake-focused network built on a partnership between the HayWired Coalition Partners, the San Francisco and Hayward chambers of commerce, banks, and minority-owned small businesses in the San Francisco Bay Area.



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ACKNOWLEDGEMENT

The HayWired HandShake Network is a conceptual research project connected to Diversifying Haywired Communication¹, a collaborative initiative of the Natural Hazards Center, the U.S. Geological Survey (USGS), and the Bill Anderson Fund (BAF).

The project was developed by Jean-Claude Ndongo, BAF fellow and Ph.D. student in Public Administration at Florida Atlantic University, under the supervision of Dr. Nnenia Campbell with the Natural Hazards Center at the University of Colorado Boulder and the BAF, Dr. Anne Wein with the USGS, and Suzanne Frew with the Frew Group.

¹ Diversifying HayWired Communication: <https://hazards.colorado.edu/research-projects/diversifying-haywired-communications>

OVERVIEW

Based on the HayWired Earthquake Scenario² which simulates a magnitude 7.0 earthquake on the Hayward Fault, the HayWired HandShake Network addresses disaster preparedness for small businesses owned by marginalized San Francisco Bay Area populations. The spelling of HandShake with a capitalized "S" emphasizes the word "shake," highlighting the Network's focus on earthquake preparedness.

This conceptual project proposes the creation of a formal earthquake-focused network. Anchored by the San Francisco and Hayward chambers of commerce, the proposed Network would constitute a strategic partnership between the chambers, the HayWired Coalition Partners, banks that are members of the San Francisco and Hayward chambers of commerce, and minority-owned businesses in the San Francisco Bay Area.

The Network's objective would be to provide the partners with a direct platform to help minority-owned businesses develop expertise on earthquake preparedness and directly access financial resources needed for preparedness, recovery, and business resilience. Experts—including individuals that I interviewed as I developed this project—contend that a lack of financial resources can negatively impact a small business's ability to be resilient to disasters, and that small businesses owned by members of minority groups in

² HayWired Earthquake Scenario: <https://www.usgs.gov/programs/science-application-for-risk-reduction/science/haywired-scenario>

particular are often unable to secure the financial resources needed to prepare for or recover from disasters (Tierney, 2007; Sanchez-Moyano, May 2022).

The activities of the HayWired HandShake Network (hereinafter the Network) would correspond to the four phases of the emergency management cycle (mitigation, preparedness, response, and recovery), the HayWired Earthquake Scenario (Detweiler & Wein, 2021), the HayWired Scenario Exercise Toolkit for Businesses and other Organizations (<https://www.earthquakecountry.org/haywired/>), and other preparedness tools such as Outsmart Disaster's Resiliency Resources Toolkit (Outsmart Disaster, 2022).

This proposal is organized as follows:

1. A brief review of the literature on the HayWired Earthquake Scenario, networking, and earthquake and disaster preparedness for small businesses,
2. a description of the conceptual framework of the HayWired HandShake Network and how the platform would be implemented,
3. a discussion on lessons learned during the conceptualization of the program, and
4. a mention of recommended next steps towards the program's implementation.

LITERATURE REVIEW

Academic researchers and practitioners have written extensively on disaster resilience, networking, diversity and inclusion initiatives in the banking industry, and small and minority-owned businesses (Mileti, 1999; Aldrich et al., 2022; Shrikant, 2018). The Network concept is informed by each of these literatures, as well as scientific reporting on the HayWired scenario (Detweiler & Wein, 2021).

The HayWired Earthquake Scenario

Research shows that natural hazards routinely devastate entire communities and cause extensive physical and economic damage to those communities (Detweiler & Wein, 2021). Historically, the state of California has endured notable devastating seismic events such as the magnitude 7.8 earthquake in San Francisco in 1906, the magnitude 6.9 Loma Prieta earthquake in 1989, and the magnitude 6.7 earthquake in Northridge in 1994 (Wald et al., 2001; Kozák & Čermák, 2010; Detweiler & Wein, 2021). Aside from causing deaths and serious injuries, those disasters have also caused billions of dollars in damages (Wald et al., 2001; Kozák & Čermák, 2010; Detweiler & Wein, 2021).

According to Detweiler & Wein (2021), researchers, public and private organizations, and policymakers in California have dedicated time, expertise, and billions of dollars to earthquake preparedness efforts. The HayWired Earthquake Scenario constitutes one of those initiatives (Wein et al., 2020; Detweiler & Wein, 2021); it consists of a hypothetical magnitude 7.0 earthquake impacting the San

Francisco Bay area in April 2018 (Hudnut et al., 2018; Wein et al., 2020; Detweiler & Wein, 2021). Since early 2018, several private and public entities, including the U.S. Geological Survey (USGS), the Federal Emergency Management Agency (FEMA), California Office of Emergency Services, California Resiliency Alliance, and the Earthquake Country Alliance (ECA), formed a coalition that has been working on an exercise toolkit for the HayWired Earthquake Scenario (Hudnut et al., 2018; Wein et al., 2020; Detweiler & Wein, 2021).

Earthquakes cause considerable property damage, economic losses, and disruption of business activities (Anderson, 1996; Han & Nigg, 2011). Using sophisticated economic models, scientists, policymakers, and organizational and community leaders have estimated that the HayWired Earthquake Scenario would cause approximately \$44.2 billion in business interruption losses, thus raising the importance of working towards business resilience and continuity (Wein et al., 2020; Sue Wing et al., 2022).

Networking

"Networks are composed of people and/or organizations that are connected through the exchange of information, ideas, business transactions, and knowledge" (Reid & Smith, 2009, p. 49). Networking is crucial to business resilience and recovery in the face of disasters (Aldrich et al., 2022). Business owners network and form alliances with other organizations when they understand that disaster resilience can be developed effectively through

partnerships and by building capacity at the local community level (BarNir & Smith, 2002; Kapucu et al., 2010).

As mentioned in Chapter V4 of the HayWired Earthquake Scenario, businesses owned by individuals with solid networks and interorganizational relationships often benefit from the support of other members of their networks to engage in business disaster planning, community resilience, and business protection measures (Dunaway & Shaw, 2010; Wein et al., 2020). Furthermore, shared objectives, mutual support for community resilience and disaster preparedness, mentoring relationships among business owners of different backgrounds, and outreach programs by local government agencies enhance resilience efforts and partnerships between businesses (Dunaway & Shaw, 2010). While some businesses form and maintain relationships through their operations, many also use platforms such as chambers of commerce to network (Gonul, 2018; Shrikant, 2018; Lee, 2021).

Local Chambers of Commerce

Small businesses that belong to chambers of commerce gain from the support of other members who encourage them to participate in business disaster preparation, community resilience, and disaster protection measures (Shrikant, 2018; Sanchez-Moyano, 2022). Small businesses that are members of local chambers of commerce often build crucial social capital (Gonul, 2018; Lee, 2021) that can be used to procure the resources needed to rebuild their infrastructure post-disasters . Furthermore, small businesses owned by members of marginalized communities and ethnic and racial minorities often rely on

networking through local chambers of commerce to find business opportunities (Shrikant, 2018); such networking activities can ensure the resilience of those businesses in the face of disasters (Sanchez-Moyano, 2022).

Chambers of commerce provide valuable business advice to small businesses and serve as networking platforms through which those businesses can connect with larger organizations (Tiwasing & Sawang, 2021). By interacting with more established and larger businesses, small businesses that are members of local chambers of commerce build social capital that could be translated into valuable resources to ensure business continuity or disaster preparedness (Gonul, 2018; Tiwasing & Sawang, 2021). One example of such interactions is the partnership between Comcast, chambers of commerce, and small businesses owned by women and people of color through the Comcast RISE program (Comcast, 2022; Foxman, 2022). Comcast offers those businesses marketing consulting services, technology, media, and creative assistance, as well as a \$10,000 grant for business sustainability and growth (Comcast, 2022; Foxman, 2022). Comcast has worked with various local chambers of commerce, such as the South Florida Hispanic Chamber of Commerce Foundation and the Miami-Dade Chamber of Commerce (Community Newspapers, 2021; Comcast Business, 2022).

Business Resilience and Continuity

As disasters are happening more frequently and inflicting more harm to businesses worldwide, business continuity is becoming an increasingly important topic of discussion (Guidry et al., 2015). Some businesses are more resilient and

better prepared for disasters than others; however, for many, particularly those needing more financial resources or personnel, voluntary participation in disaster preparedness is still rare (Mileti, 1999; Dunaway & Shaw, 2010). To ensure the resilience of their businesses, owners of small businesses must evaluate the numerous risks that could affect their companies both directly and indirectly, such as employee service disruption, data systems issues, inventory losses, or supply chain interruptions (Guidry et al., 2015). Those business owners should also have robust business continuity plans that include communication strategies and measures for employee support in the case of disasters; these plans should be current and be seen favorably by business insurance (Guidry et al., 2015).

Existing research on business disaster readiness and Chapter V4 of the Haywired Earthquake Scenario indicates that multiple factors such as organizational size, political power, access to resources and funds, prior disaster experience, and ownership of the business location significantly impact business owners' motivation and ability to invest in emergency and disaster preparedness (Mileti, 1999; Atkinson & Sapat, 2013; Dunaway & Shaw, 2010; Wein et al., 2020). It is also worth noting that while small businesses may be as motivated as their larger counterparts are to engage in business continuity and disaster prevention, organizations that are older, financially secure, and established in multiple locations tend to practice disaster preparedness more often than newer and less stable businesses (Dunaway & Shaw, 2010; Wein et al., 2020).

Business resilience is a collaborative effort involving several actors within a business community and outside of it. Support for the business community

from academia has grown over the years: several academic institutions house centers for economic development and disaster research (Sarmiento et al., 2016). Those centers provide businesses with educational tools stemming from disaster research and valuable information that businesses could use for disaster preparedness (Sarmiento et al., 2016). Although those initiatives may provide businesses with valuable information, they do not provide networking opportunities or access to capital that could facilitate effective disaster preparedness for small businesses.

PROJECT RATIONALE

Experts in small business resilience and natural hazards recommend that local chambers of commerce participate in the resilience of the small businesses in their communities by facilitating partnerships between those businesses and larger organizations through formal and informal networking or shared disaster planning initiatives (Gonul, 2018; Tiwasing & Sawang, 2021).

I developed the HayWired HandShake Network concept to contribute to the discourse about earthquake preparedness and recovery and business resilience for minority-owned businesses. A handshake signifies a mutually beneficial agreement between two or multiple parties. Therefore, I named this conceptual program after this gesture of agreement to illustrate the significant impact that strategic partnerships and networks can have on the earthquake preparedness of minority-owned businesses. In this section, I describe the

entities that would form the HayWired HandShake Network and the role that they would play in assisting minority-owned businesses with disaster resilience.

The HayWired Coalition Partners

Comprised of over 40 entities, the coalition is committed to earthquake preparedness in California through the HayWired Earthquake Scenario (Rosa, 2018; Detweiler & Wein, 2021). The partners include the Earthquake Country Alliance (ECA), California Resiliency Alliance (CRA), government agencies such as the U.S. Geological Survey (USGS) and the Federal Emergency Management Agency (FEMA), municipalities such as the City of San Francisco and the City of Hayward, banks, several academic institutions, engineering, and consulting firms, and various other public and private organizations (Detweiler & Wein, 2021).

Since 2016, the partners have participated in the HayWired Campaign, which has pledged to assist businesses in achieving earthquake preparedness and overall disaster resilience using a variety of tools such as training workshops, challenges, or the Resiliency Resources Toolkit available on Outsmart Disaster's website (Rosa, 2018, p. 6; Outsmart Disaster, 2022). In 2018, Outsmart Disaster expanded beyond the San Francisco Bay Area as statewide initiative. Among many other resources, the Resiliency Resources Toolkit provides guidelines on choosing disaster-specific insurance, a checklist of items to have on hand in the event of a disaster, and a business continuity template (Outsmart Disaster, 2022). While the toolkit is free and available online, some of the recommendations, such as delegating disaster monitoring and

communications to one employee or acquiring generators, would necessitate access to additional capital in the form of loans or lines of credit that may be acquired through established relationships between small businesses and banks operating within the community.

Banks

Research indicates that banks have historically discriminated against minorities and businesses owned and operated by members of minority groups (Bates & Robb, 2013). Broady et al. (2021) decried systemic practices from the American financial industry that have historically hampered minority populations' efforts to build wealth and create long-lasting and prosperous businesses. In 1977, the Community Reinvestment Act (CRA) was passed to ensure equal access to financial services for all individuals and businesses, including those in underserved communities (Bates & Robb, 2015). However, since then, discriminatory practices in lending have persisted and contributed to a continuously widening wealth gap between Whites and non-White Americans (Bates & Robb, 2015; Broady et al., 2021).

Facing constant difficulties securing credit, many minority business owners often deplete their savings or turn to friends and relatives for startup capital or to keep the business afloat (Bates & Robb, 2013). According to Bhutta et al. (2020), in 2019, Black families' mean and median wealth of \$142,500 and \$24,100, respectively, represented only 15% of White households, which indicated mean and median wealth figures of \$983,400 and \$188,200 respectively. These wealth gaps, which also occur when comparing White

households to other minority groups in the United States, can further complicate minorities' abilities to build long-lasting and resilient businesses (Bates & Robb, 2013; Bhutta et al., 2020).

Over the years, banks have advertised credit programs for minority-owned businesses. Following calls for social equity after George Floyd's murder in police custody in 2020, the leaders of several banks took a prominent role in pledging \$50 billion to social justice programs, including lending programs to benefit minority-owned businesses (Jan et al., 2021). Some banks involved in the pledge operate in San Francisco and Hayward. The proposed HayWired HandShake Network serves as an opportunity for those banks to fulfill the promises of the pledge and provide minority groups and their businesses with access to the capital to invest in earthquake preparedness.

San Francisco and Hayward Chambers of Commerce

Local and regional chambers of commerce routinely provide disaster preparedness and recovery materials, resources, and information to small businesses (United Nations, 2015; Sarmiento et al., 2016). However, some local chambers of commerce still lack diversity and are thought to be “acting within a system that divides minority and nonminority businesses, and by focusing on working within this preexisting system to gain economic profit, these organizations are reproducing the existing racial organization of businesses” (Shrikant, 2018, p. 112).

It is worth noting that the San Francisco and Hayward Chambers of Commerce are explicitly committed to supporting minority-owned businesses. The San Francisco Chamber of Commerce has partnered with a regional bank that has developed a platform that supports minority-owned small businesses (San Francisco Chamber of Commerce, 2017). Furthermore, the membership of that chamber includes some of the most prominent banks in the United States, including those that have committed to contribute to a \$50 million pledge to support these businesses. The directory of the Hayward Chamber of Commerce also includes banks that have committed to lending to minority-owned businesses and that are a part of the HayWired Coalition. Furthermore, the Hayward chamber houses the newly created Black Business Roundtable, which promotes the activities of minority-owned businesses ("Wellness Festival," 2022).

With minorities, or non-White individuals, representing over 50% of the population in the cities of San Francisco and Hayward, respectively, based on the 2010 census, the chambers of commerce in those cities could play a catalytic role in the development of an earthquake-focused network for the benefit of minority-owned businesses (Bay Area Census, 2022). Research shows that, while minority-owned small businesses would like to engage in disaster preparedness, they often need to prepare to face disasters (Richie et al., 2010; Bell & Gomez, 2011). Through the proposed HayWired HandShake Network, the San Francisco and Hayward chambers of commerce could help minority-owned small businesses practice disaster preparedness and enhance business resilience.

METHODOLOGY

The following paragraphs describe the methodology through which I developed the conceptual HayWired HandShake Network. This process included a scan of the environment where the Network would take place and informal consultations with experts in earthquakes, community leaders, and representatives of financial institutions in the Bay Area. Additionally, I researched existing disaster-related networks.

Environmental Scan

As part of this project, I processed an environmental scan of the entities that would relate to the HayWired HandShake Program. Environmental scanning is the process of identifying internal and external factors that may impact the successful completion of an initiative or the operations of an organization (Albright, 2004). In this context, I identified business-to-business networking as the main factor that would impact the success of the HayWired HandShake Network. I also identified chambers of commerce ambassadors, bank employees, and business owners as primary actors in the quest for business resilience for small businesses from marginalized communities.

Through the scanning process, I found that the San Francisco and Hayward chambers of commerce and banks in the Bay Area that could be involved in the Network already have existing initiatives geared towards helping small minority-owned businesses. The San Francisco chamber is the larger of the two chambers and counts several local and multinational banks as members.

As previously mentioned, I identified an existing partnership between the San Francisco chamber of commerce and a Bay Area-based local bank that recognizes and rewards minority-owned small businesses with which it works. I also found that the Hayward chamber has demonstrated a commitment to small businesses from underrepresented groups by hosting the Black Business Roundtable, although it has a small membership base. Two banks listed as partners with the HayWired Coalition are also members of the San Francisco Chamber of Commerce (Detweiler & Wein, 2021).

I noted that one large bank headquartered in San Francisco maintains a lending program that focuses on small businesses owned by individuals with low to moderate income. Another bank based in the Bay Area, which has previously hosted events for the San Francisco chamber of commerce, maintains a robust community engagement program and is committed to assisting minority-owned businesses. I also found a multinational bank with offices in the Bay Area that has pledged to increase its spending with local minority-owned businesses; this bank also helps those businesses get certified as minority-owned to ensure access to business opportunities set aside for such businesses. I have also identified another multinational bank with a significant presence in the Bay Area, which has implemented a nationwide racial equity program and started an investment fund for minority-owned businesses. Finally, I also identified an essential public financial institution that provides vital research and data on the impact of disasters and economic inequalities on small businesses owned by members of marginalized communities.

Informal Consultations

To test the feasibility of the HayWired HandShake Network, I conducted informal consultations (e.g., unstructured interviews) with individuals who had relevant expertise and familiarity with minority-owned businesses, financial services, and earthquakes to obtain feedback on a preliminary design for the project.

Those individuals included earthquake experts affiliated with two major organizations that are influential members of the HayWired Coalition Partners. One of the entities is an alliance of communities and various public and private organizations that organizes events and provides educational tools for earthquake preparedness. At the same time, the other raises awareness of the importance of disaster preparedness among small business owners and provides valuable tools and resources for resilience. These experts informed me about several existing earthquake preparedness resources for businesses, such as the California Shakeout and FEMA's QuakeSmart program (Gallagher & Gallagher, 2010; Jones & Benthien, 2011). One of the experts had previously led a local chamber of commerce and confirmed that many small businesses could not engage in overall emergency preparedness. Another emphasized the importance of networking for building small businesses' disaster resilience; the literature on disaster preparedness corroborated her assessment. She also suggested building a network dedicated to one type of disaster and one step of the emergency cycle.

My initial proposal included a disaster certification program; however, one expert suggested that it would be ineffective as such an initiative had been previously attempted without success. That certification process also involved local chambers of commerce as training partners. Although small business owners participated in large numbers, the program was unsuccessful due to difficulties getting the participants through the different steps of the certification process, given that each business was at a different stage in disaster preparedness.

I also interviewed two experienced community leaders who belong to minority groups and are well-respected by minority business owners in the Bay Area. The first leader, who boasts an impressive resume in international development and community engagement in the City of Oakland, emphasized that minority business owners often lack the financial resources to practice earthquake preparedness. He also noted a need for more trust between those business owners and representatives of large financial institutions as barriers to building relationships between banks and those individuals.

When asked about the barriers to earthquake preparedness faced by those business owners, the second leader, who had been instrumental to the Black Business Roundtable in Hayward, replied: “they are not prepared; people are not prepared. Having seen the behind-the-scenes of many businesses, many do not have earthquake kits, no signage, no manuals. The main barrier to preparedness is the lack of staff, a lot of business owners wear several hats in the business.” Like the leader in Oakland, she also noted that access to financial

resources often hinders minority business owners' efforts to plan for the aftermath of an earthquake. She stated that while business owners from underrepresented backgrounds are eager to practice disaster preparedness, many are busy running day-to-day activities as the sole employee of their businesses. The lack of spare time prevents those individuals from dedicating additional time and already scarce financial resources and personnel to building disaster-resilient businesses.

I also successfully discussed the HayWired HandShake Network concept with three finance experts currently employed by a large public financial institution based in San Francisco. These professionals shared their expertise with small businesses and disasters, asked important questions regarding the feasibility of the HayWired HandShake Network, and provided critical feedback on this conceptual project. One of these experts inquired whether the HayWired HandShake Network would include Community Development Financial Institutions (CDFI). CDFIs contribute to economic development by concentrating their efforts on access to financial resources for underserved communities, including minority-owned businesses (Rausch, 2012; Sanchez-Moyano, 2022). The other two experts suggested piloting the HayWired HandShake Network concept in San Francisco and Hayward and then considering expanding it to more diverse cities with higher concentrations of minority populations, such as Richmond or Oakland (Table 1).

Table 1. Demographics based on the 2010 Census

Demographics based on 2010 Census	San Francisco	Hayward	Oakland	Richmond
White	48.50%	34.20%	34.50%	31.40%
Black or African American	6.10%	11.90%	28.00%	26.60%
American Indian and Alaska Native	0.50%	1.00%	0.80%	0.60%
Asian	33.30%	22.00%	16.80%	13.50%
Native Hawaiian and Other Pacific Islander	0.40%	3.10%	0.60%	0.50%
Some other race	6.60%	20.80%	13.70%	21.80%
Two or more races	4.70%	7.10%	5.60%	5.60%

Data retrieved from <http://www.bayareacensus.ca.gov/index.html>

In addition to the informal consultations mentioned above, I attended the U.S. Chamber of Commerce Foundation’s 11th Annual Building Resilience Through Private-Public Partnerships Conference³ in Washington DC on July 28th and 29th, 2022. While at the conference, I participated in sessions in which business and disaster experts and policymakers discussed new developments and initiatives regarding the resilience of small businesses in the face of natural hazards.

The speakers emphasized the need to explore existing local solutions to small business disaster resilience and advocated for greater engagement of local chambers of commerce in the resilience of small businesses from marginalized communities. This last recommendation is akin to the HayWired HandShake Network’s emphasis on business disaster resilience through networking within local chambers of commerce.

³ The U.S. Chamber of Commerce Foundation's 11th Annual Building Resilience Through Private-Public Partnerships Conference:
https://events.uschamberfoundation.org/buildingresilienceconference_2022/HOME

Disaster-related networks

Successful disaster-focused networks and initiatives already exist around the country and in the San Francisco Bay Area. On a national scale, the US Small Business Administration (SBA) maintains a disaster loan program for small businesses, and FEMA is an active participant in the Resilient Nation Partnership Network (RNPN), which is committed to empowering communities and businesses by educating them on climate change (Dilger, 2018; FEMA, 2022). The Local Initiatives Support Corp. (LISC), a recently formed Community Development Financial Institution (CDFI), is backed by major financial institutions and provides a variety of programs and services to minority communities, including a "Small Business Resiliency Network" for disaster planning and training in Texas, New Jersey, Alabama, and Louisiana (McKinney, 2022, p. 1). In Oklahoma, a nonprofit organization, the Disaster Resilience Network (DRN), aims to "empower people, businesses, and communities to reduce the impact of disasters" (DRN, 2020, p. 1).

In the Bay Area, the Bay Area Urban Areas Security Initiative takes a FEMA-inspired broad approach to community-wide economic recovery and resilience from various disasters (UASI, 2019). The San Francisco Chamber of Commerce maintains the Small Business Resiliency Project (SBRP), which provides small businesses free advice to navigate economic crises (San Francisco Chamber of Commerce, 2022). Other programs include the California Reinvestment Coalition (CRC) Resilience Fund, the Oakland Black Business Fund, the California Rebuilding Fund, and others (AFN, 2022). These initiatives

are outstanding, well-structured, usually backed by major financial institutions, and often help minority-owned businesses confront the consequences of various disasters.

PROGRAM DESIGN, IMPLEMENTATION, AND STRATEGY

The environmental scan, feedback from informal interviews, and my participation at the conference influenced the design of the conceptual HayWired HandShake Network.

Design - Objective and Participants

The HayWired HandShake Network concept would address the imperative need for businesses from marginalized communities to plan for and recover from earthquakes by networking directly with banks with the assistance of the HayWired Coalition partners and the San Francisco and Hayward chambers of business.

Employees and ambassadors of the local chambers would play a significant role in the success of the Network. Employees are individuals, such as administrative managers, marketing managers, or directors of events, who are on the chamber's payroll, and ambassadors are members who volunteer at various events. Most local chambers of commerce maintain robust ambassador programs; for example, the San Francisco Chamber of Commerce states that: "Ambassadors are San Francisco Chamber of Commerce partner-volunteers who, by engaging new and prospective members and volunteering at Chamber

events, assist and support the Chamber, while actively extending their own business contacts and their company's visibility."⁴

Description, Implementation, and Strategy

The success of the HayWired HandShake Network would depend on the practical implementation of a three-phase process (Figure 1).

In the first phase, the HayWired Coalition Partners will train employees and ambassadors of the chambers to ensure that they develop a thorough understanding of the emergency management cycle and the HayWired Scenario and become familiar with the HayWired Scenario Exercise Toolkit for Businesses and other existing business-related preparedness activities such as Outsmart Disaster's Resilient Business Challenge (Outsmart Disaster, 2022).

In the second phase, the newly trained individuals, who would be referred to as *Consultants* of the HayWired HandShake Network, would, in turn, train bank employees in the emergency management cycle, the HayWired Earthquake Scenario, the various business resilience tools available through Outsmart Disaster and the HayWired Scenario Exercise Toolkit for businesses. It is worth noting that some of the chamber ambassadors, or consultants, may also be employed by banks that are chamber members.

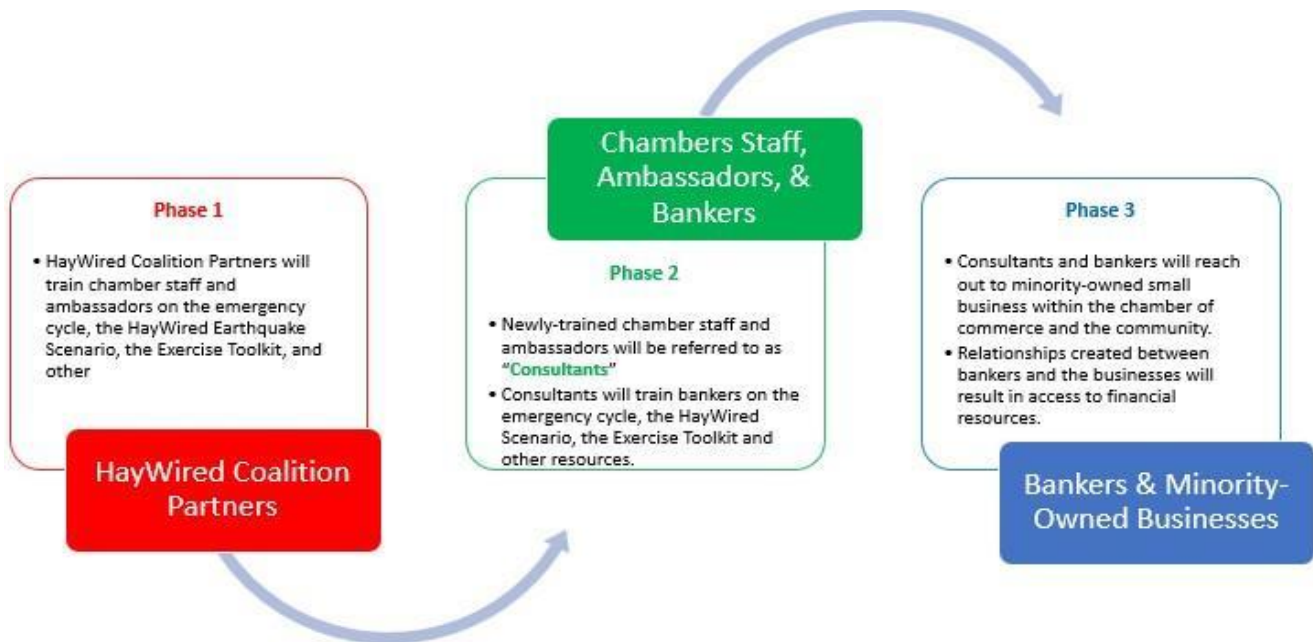
In the third and last phase, bank employees and consultants of the HayWired HandShake Network, including chamber staff and ambassadors, will

⁴ San Francisco Chamber of Commerce Ambassadors Club:
<https://sfchamber.com/community/ambassadors-club/>

reach out to businesses in the community or within the chamber that self-identify as minority-owned to encourage them to join the HayWired HandShake Network and begin forming relationships with banks. Research shows that strong relationships between bankers and business owners benefit both parties as bankers develop a better understanding of their clients, and business owners ultimately receive the best service, advice, and products to meet their needs (Petersen & Rajan, 1994; Berger & Udell, 1995; Arora, 2020). Furthermore, a lack of solid banking relationships often hampers minority-owned businesses' ability to access crucial financial resources (Petersen & Rajan, 1994).

The three phases of the training will be ongoing, and the outcome of this process would be twofold: minority-owned business owners will gain valuable earthquake planning and disaster planning experience, and they will build crucial relationships with bankers, which may result in the acquisition of financial resources needed to ensure earthquake preparedness.

Figure 1: The HayWired HandShake Network - A Three-Phase Process



DISCUSSION

In this section, I discuss implementing the Network's challenges and opportunities. I also reflect on the lessons learned from designing the conceptual HayWired HandShake Network.

Challenges

Upon developing the HayWired HandShake Network, I noted that the successful implementation of the Network could face several challenges, such as the following:

- Bankers could experience conflicts of interest between their roles as employees of the banks and consultants for the Network. Those individuals would have to ensure that they are acting appropriately and

ethically when training small business owners, avoid steering them towards their products, and remind them of their freedom to acquire financing from other sources while hoping that the business owners would choose their bank. However, once a relationship is established between a banker and a small business owner, the business owner would most likely choose to work with that banker.

- Some bankers' actions within the Network may be self-interested or performative. As mentioned earlier, corporate America pledged \$50 billion to social justice after George Floyd's murder (Jan et al., 2021). However, only some corporations have followed through with their pledge, which seemed to only be performative in many cases (Jan et al., 2021).
- In some cases, bureaucratic red tape or compliance regulations could prevent banks from providing funding to minority-owned businesses promptly. However, the Network would allow bankers and minority small business owners to establish crucial relationships that would allow them to work together in the long run.
- Competition with other disaster-related networks: as mentioned earlier, many of those networks take a broader approach to disasters rather than focusing on earthquakes. The HayWired HandShake Network would be unique due to its focus on earthquake preparedness and limiting the partnership to local chambers of commerce, banks, and minority-owned businesses.

Opportunities, stakeholder incentives, and value proposition

The conceptual HayWired HandShake Network would benefit all parties involved in the project:

- The HayWired Coalition Partners would receive feedback from bank employees and minority business owners on the effectiveness of the HayWired business exercise toolkit and other training facilitation guides. This valuable feedback would help the HayWired Coalition Partners tailor their advice and training to fit the needs of the different minority-owned businesses in the area.
- The chambers of commerce would develop in-house knowledge in the four steps of the emergency management cycle. They could see increased membership and participation due to increased interactions among members during training sessions on the proposed Network.
- Banks could see an increase in their consumer base while finding additional avenues for community engagement and corporate social responsibility.
- Minority-owned small businesses would have access to additional capital to invest in adequate disaster preparedness while widening their networks to include other businesses outside their area. Moreover, with access to loans or lines of credit, minority business owners can purchase generators or other earthquake-preparedness supplies from other members of the local chambers of commerce.

Lessons Learned

As I developed the conceptual HayWired HandShake Network, I also reflected on areas of improvement I would consider in future project iterations. I learned that networks already exist between banks and business owners from marginalized communities in the Bay Area. Some of the experts with whom I spoke informed me of formal networks, such as the California Reinvestment Coalition (CRC) Resilience Fund, the Oakland Black Business Fund, and the California Rebuilding Fund. Others referred to several informal networks of minority-owned business owners and community leaders who rely on each other for communication, preparedness, and recovery in the face of disasters. Future developments of the HayWired HandShake Network would consider best practices developed by these existing networks to ensure that the Network complies with existing norms of the small business community in minority groups in the San Francisco Bay Area.

As I mentioned earlier, my initial design of the HayWired HandShake concept included a disaster certification program; however, following feedback from an emergency expert, I learned that a certification process would not be effective for the HayWired HandShake Network. Consequently, future developments of the HayWired HandShake Network would focus on continuing to build strong and effective networks between the HayWired Coalition Partners, local chambers of commerce, private organizations, and minority-owned businesses. While the HandShake concept's first iteration would focus on banks that are members of the San Francisco and Hayward chambers of commerce,

future developments would include other private organizations such as Comcast that already maintains successful assistance programs with minority-owned businesses. During the environmental scanning stage of this project, I learned that several private organizations have existing community engagement and social responsibility initiatives, and many of their employees are active with the chambers and may be serving as ambassadors already. Those employees who would become consultants of HayWired HandShake Network could help train owners and employees of minority-owned small businesses.

CONCLUSION

During the HayWired HandShake Network's development, some of the experts to whom I was introduced via email were not available for interviews. Those individuals included representatives of influential organizations engaged in community development and social equity in that area and some prominent individuals affiliated with small business disaster resilience efforts in the Bay Area and throughout the country. The following steps for this proposed project include conducting interviews with those individuals and further developing the HayWired HandShake Network into a sustainable project that will leverage local best practices in small business resilience.

I also intend to contact representatives of Bay Area banks and those of the San Francisco and Hayward chambers to discuss the HayWired HandShake Network and its implementation. I would reconnect with representatives of the earthquake-dedicated organizations that are members of the HayWired Coalition

Partners to discuss the development of the conceptual HayWired HandShake Network and offer to coordinate our efforts toward future iterations of the project. I would also contact the various networks and small business development centers that support disaster resilience efforts in Northern California (Wing, 2020; AFN, 2022). Those discussions would facilitate an understanding of existing partnerships and programs and the potential testing of the HayWired HandShake Network.

Lastly, following conversations with employees of prominent financial institutions in the Bay Area, I will incorporate the following initiatives in the next iteration of the HayWired HandShake program. As suggested by representatives of one of the preeminent financial institutions in the Bay Area, I would explore whether small businesses would consider using green strategies to limit their carbon footprint while implementing disaster management strategies. I would also implement those individuals' recommendations to consider expanding the program beyond San Francisco and Hayward and considering alternate sources of funding for small businesses, such as Community Development Financial Institutions (CDFIs), instead of limiting the acquisition of resources to businesses' relationships with large financial institutions.

In conclusion, as mentioned throughout this report, the HayWired HandShake Network is conceptual; the valuable guidance from the project supervisors, the feedback from various experts, as well as the lessons learned during the development of this concept will be crucial to the next steps that I would take to improve this concept.

Disclaimer

The HayWired HandShake Network conceptual project does not constitute an endorsement of any bank or financial institution or the products, services, and programs that those institutions offer.

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