We asked Darcy Kieran from The Business of Diving Institute and Scubanomics to summarize his industry-expert view of Brownie's Marine Group market position and opportunities. We noticed he included surface-supplied air systems (tankless diving) in recent analyses of scuba diving and snorkeling markets. So we asked him to consolidate and summarize his observations, here, for us.

BWMG's Market Opportunities:

Market trends and product benefits Brownie's Marine Group could capitalize on.

August 15, 2021

The outdoor industry experienced significant growth during the COVID-19 pandemic. Brownie's Marine Group (BWMG) benefited from this trend with a <u>53.5% increase in revenues in 2020</u>.

Post-pandemic, the *newest generation of battery-operated surface-supplied air (SSA) systems* offers numerous growth opportunities for Brownie's Marine Group.

Scuba Diving vs. The Outdoor Industry

"Amidst the COVID-19 pandemic restrictions, more Americans have turned to the outdoors, some for the first time and others for the first time in many years. These new outdoor participants represent an unprecedented opportunity to grow and diversify the outdoor community." Source: <u>Outdoor Industry Association</u>.

The outdoor industry did well during the pandemic. Unfortunately, it has not been the case for scuba diving, where we witnessed crushing drops in new entry-level open water certifications. But this may be good news for surface-supplied air (tankless) diving. So please bear with me for a minute!

2020 vs 2019			
Q1	Q2	Q3	Q4
-20.2%	-86.1%	-44.9%	-27.0%
-19.1%	-76.2%	-40.3%	-29.6%
-18.1%	-59.6%	-13.1%	-17.4%
-26.3%	-81.9%	-35.6%	-43.0%
-19.5%	-63.4%	-33.5%	-32.3%
-25.5%	-87.7%	-44.5%	-48.0%
-23.9%	74.4%	-38.7%	-46.4%
-11.8%	-87.6%	-48.8%	-45.6%
-31.4%	-63.2%	-25.6%	-44.4%
-20.4%	-73.3%	-33.3%	-31.9%
	Q1 -20.2% -19.1% -18.1% -26.3% -19.5% -25.5% -23.9% -11.8% -31.4%	Q1Q2-20.2%-86.1%-19.1%-76.2%-18.1%-59.6%-26.3%-81.9%-19.5%-63.4%-25.5%-87.7%-23.9%74.4%-11.8%-87.6%-31.4%-63.2%	Q1Q2Q3-20.2%-86.1%-44.9%-19.1%-76.2%-40.3%-18.1%-59.6%-13.1%-26.3%-81.9%-35.6%-19.5%-63.4%-33.5%-25.5%-87.7%-44.5%-23.9%74.4%-38.7%-11.8%-87.6%-48.8%-31.4%-63.2%-25.6%

Figure 1: Source: DEMA

There are two main reasons for a drastic decline in open water certifications in 2020.

First, recreational scuba diving activities are mainly done in tropical tourist destinations in countries where borders were closed to international travel for a good part of 2020. In many places, like Fiji, they are still closed. Meanwhile, entry-level scuba diving certifications in urban (non-tourist) locations are often done prior to a vacation trip under sunny skies. A reduction in international travel and tourism led to a decline in local scuba diving certifications the USA.

Second, access to a pool is required to teach traditional scuba diving. And many public and private pools were closed during the pandemic.

Current Challenges in The Dive Industry

Even before the pandemic, the dive industry was shrinking. <u>Scuba diving participation</u> has been declining for years because <u>more people are dropping out</u> than getting into scuba diving. In addition, the industry has not been successful at <u>attracting a significant number of younger non-divers</u>.

There are numerous reasons for this pre-pandemic negative trend in scuba diving, including:

- It is *complicated* to go scuba diving. You need a plastic card from a dive certification agency and a pile of stuff from a dive gear brand!
- Scuba diving is *not readily available* wherever there is water. You need a nearby source of compressed air to refill scuba cylinders.
- The dive industry *marketing and processes* are geared toward baby boomers for whom scuba diving was a lifelong dream and a lifestyle. Younger generations are more likely to be merely interested in going underwater here and there, casually, when they feel like it. It's only one of the various activities they would do on vacation, and as such, they won't travel with a large duffel bag full of heavy scuba diving gear.

So, how is this good for surface-supplied air (SSA) diving?

We need to take a step back, and instead of discussing "scuba diving," we should look at what it is: A means to an end. Scuba diving is just *one way* of *exploring the underwater world*.

While people are looking for more outdoor activities, the traditional way of providing the experience of the underwater world (scuba diving) is not adapted to today's consumers' needs.

As we will discuss below, SSA (tankless diving) bypasses the limitations that come with traditional recreational scuba diving. In that regard, Brownie's Marine Group is more in the outdoor industry than it is in the scuba diving one. Johnson Outdoors (JOUT) is a good example of the difference between these two markets. While JOUT's scuba diving division (Scubapro) experienced a 14% decline in sales in 2020, Johnson Outdoors' three other divisions (fishing, camping, and watercraft) produced significant net sales increases of, respectively, 27%, 62%, and 158%.

It is noteworthy that Johnson Outdoors' watercraft division produced the most significant growth. This market is an interesting one for portable surface-supplied air (tankless) diving systems.

The <u>outdoor industry is a US\$ 460 billion market</u>, while <u>the dive industry is roughly a US\$ 4 billion one</u> (excluding travel). Thus, being positioned in the outdoor industry instead of the dive industry is a valuable advantage.

Market Trends and Product Benefits BWMG Can Capitalize On

Besides being in the growing outdoor industry, the newest battery-operated surface-supplied air systems by BWMG tap into numerous specific market trends. Battery-operated SSA may, in fact, be on a path to create a brand new blue ocean market.

Growth in Local Diving

While dive travel and scuba diving certifications were down during the pandemic, there's been a <u>revival of</u> <u>local scuba diving activities</u>. By 'local,' we mean scuba diving that does not require international travel.

For people who want to participate in outdoor activities and explore the underwater world, surface-supplied air diving systems are a better match than traditional scuba diving gear. SSA is portable, does not require access to a local dive shop to refill scuba cylinders, and, very significantly, does not require a training course in a pool.

Opening The Planet

To explore the underwater world using a scuba diving system, you need access to air fills typically supplied by dive shops and dive centers. With surface-supplied air systems, you don't.

Gas-operated surface-supplied air systems have been around for a while. One example is <u>Brownie's Third</u> <u>Lung</u>. But these systems require refueling.

The newest generation of BWMG's surface-supplied air systems, like the <u>Blu3</u>, is battery-operated. It means that you can visit *any body of water on the planet* with a kit that fits in a backpack. It's portable, and to "refill" it, you simply need to plug it at night, right next to your smartphone.

The true advantage of this is that the new battery-operated SSA systems literally *open up the entire planet to be explored*. We are no longer limited by a need to have access to a nearby compressed air refill station or carry bulky dive gear. Bring a backpack on a stand-up paddleboard and... Off you go!

Making the Underwater World More Accessible to Snorkelers

Snorkeling is much more popular than scuba diving. For instance, in the USA, <u>2.6 million people participate</u> <u>in scuba diving, while 7.7 million Americans engage in snorkeling</u>. Thus, the snorkeling market is more than double the scuba diving one.

For a snorkeler to get closer to the reef, the mountain to climb is steep. It's all about courses and plastic certification cards—for days on! And then, you need complicated and heavy equipment. Now, let's compare that to a surface-supplied air system: It is a much easier 'next step' for a snorkeler.

Simplifying The 'Production Chain' to Deliver Air Underwater

When we manage a local dive shop, we are really <u>managing six different businesses under one roof</u>, one of which is a fill station. Compressed air, scuba cylinders, and fill stations are part of what we consider fundamental components of a local dive shop. Could we be a bit myopic?

Let's take a step back and look at what the goal is, fundamentally: *Providing people with a means to breathe underwater.*

Let's look at how we currently satisfy this goal. First, we need an air compressor sitting in a dive shop somewhere. Then we use heavy pieces of metal called scuba cylinders to store compressed air in them. We transport these containers to the dive site. We use a vest (BCD) to throw that heavy piece of metal on our back. We walk the best we can to the water entry point with that thing on our back. We jump in. We go underwater. We breathe air.

Now, let's look at a surface-supplied air system. First, we start the mini compressor and have it float at the surface. Then, we grab a hose, go underwater, and breathe air.

As an industrial engineer, I always like it when we can simplify processes!

Blue Economies in Island Countries

As island countries are looking for "solutions for sustainable economic recovery and inclusive growth in a post-pandemic world" (source: <u>Island Forum 2021</u>), they look at scuba diving which is the main tourist attraction in many of these countries.

SSA provides them with a means to *reduce the influence of foreign dive certification companies* while allowing them to economically and efficiently open up more dive sites to tourism.

Electrification of Transportation and Production Cost Reductions

We live in a world where electric and hybrid cars are everywhere—even the virile F150 (popular with many scuba diving baby boomers) has a hybrid version!

This "new world" makes it quite natural for consumers to switch to an electric-power diving system and be part of the green economy.

With the <u>gradual reduction in battery costs</u>, these new-generation battery-power surface-supplied air diving systems will become more affordable.

Safer Diving

The fact that you do not need to carry and pour fuel between dives is, in itself, an added safety for these new electric SSA systems, even if fuel-based systems have a good safety track record. Carrying fuel in a car and storing it can be challenging for some people. The new battery-powered SSA diving systems make it safer and easier in that regard.

Otherwise, for tour operators, using an SSA dive system to bring the underwater world to tourists comes with additional advantages. It is much easier to know at all times where your clients are located underwater when they are at the end of a hose. Furthermore, the length of the hose limits how deep these client-tourists can go.

Increase Convenience and Accessibility

Scuba diving is complicated. You need to get certified with an instructor in the pool and then, in an open water dive site. Most significantly, you need bulky gear, and you must carry a scuba cylinder on your back. It may be cool for guys who want to look macho, but it turns off a big chunk of the market not interested in demonstrating their physical prowess.

SSA brings extreme simplification in the steps and processes needed to explore the underwater world, and as such, *it makes the underwater world more accessible, especially to women and kids*.

Shift from Certification-Focus to Experience-Focus

Over the years, dive training agencies have kept a close grip on the dive industry, which explains the inordinate amount of profits they generate compared to other dive industry stakeholders. But this is shifting.

There is a <u>new paradigm taking form in the diving industry</u>, and it's about diving, not about issuing plastic certification cards.

By being so much more convenient and accessible, SSA allows people to experience the underwater world much faster.

SSA as a Replacement for Scuba Tryouts

Here's a message I received from an active scuba diving instructor after he read Scubanomics' <u>initial article</u> <u>on surface-supplied air (tankless) diving systems</u>:

"When I get clients asking for a 'Try Dive' experience, I normally sell them an SSA session with a large % ending up buying a unit. This is then followed up after several months with a 'Let's do the next step': Open water diver course. I find that if they have been using the [surfacesupplied air] system regularly they fly through the [open water diver course] water sessions."

It sounds like a great strategy to me. Furthermore, I am ready to bet that the *quality of the experience* these people get in SSA dives is superior to what they usually get in <u>scuba tryouts that need serious quality</u> <u>assurance improvement</u>.

An Affluent Market

SSA is of interest to numerous traditional markets, including snorkeling, scuba diving, and yachting—all of which are affluent markets. Both the <u>socio-demographic profile of a snorkeler</u> and the <u>profile of a scuba</u> <u>diver</u> point to a target market of <u>rich and well-educated people who are expected to quickly get back into</u> <u>spending on travel and activities post-pandemic</u>.

A recent <u>Scubanomics survey of the American population</u> showed that 46% of Americans were already aware of surface-supplied air diving (or tankless diving), and 16% claimed to be very likely to go diving with such a system. Thus, it translates to an immediate potential market of 24.3 million American adults.

The same survey also pointed to dissatisfaction toward current scuba diving operators, opening the door to a new way of providing the experience of the underwater world.

SSA: A Blue Ocean Strategy for the Dive Industry

A <u>Blue Ocean strategy</u> is about breaking out of the red ocean of bloody competition to create a new uncontested market space that makes competition irrelevant.

On the ERRC (Eliminate-Reduce-Raise-Create) evaluation grid developed by the authors of Blue Ocean Strategy, surface-supplied air systems shine.

Eliminate:

There are two significant elements of a traditional scuba diving operation that get thrown out to the curve by SSA.

Air compressors in dive centers. With a tankless diving system, we are carrying a mini air compressor floating at the surface. Therefore, there is no need to drive to a dive center to refill cylinders.

Scuba diving certification. As discussed in <u>our review of surface-supplied air (tankless) diving</u>, training is included with the purchase of a unit.

REDUCE

If we visit the underwater world with surface-supplied air (SSA) instead of a scuba unit, what is being "reduced"?

Training Cost & Time. That's a given. We eliminate the need for a traditional scuba diving certification.

Total Cost of Ownership. We're talking here about the amount of gear a diver needs in order to be fully equipped to go underwater. With tankless diving, we only need the SSA unit, fins, a mask, and a snorkel. Somebody may also want to use a wetsuit and a weight belt, but it is not a requirement.

Gear Complexity. Instead of a full scuba unit with numerous parts that need to be assembled before each dive and disassemble afterward, we have a floating unit that needs to be turned on.

Time to Getting Comfortable Underwater. This is debatable. Scuba tryouts (discover scuba diving) get people underwater pretty fast. But they do so while asking people to carry a full set of scuba diving equipment on their back. It is more complex. And we have numerous indications that, on average, <u>people do</u> <u>not have a great time in traditional scuba tryouts</u>. With a much less complex system (tankless diving), the learning curve to get comfortable appears to be shorter.

The goal of a tryout should be for people to *experience the underwater world*, not learn how to play with scuba gear underwater.

RAISE

I see two major factors being raised by surface-supplied air (SSA), and they are big ones.

The Number of Dive Sites Available. By eliminating the need for a traditional air compressor, *we open the entire planet to underwater explorers*. Imagine all the sites where a dive would be amazing, but the closest dive center is hundreds of miles (km) away. With tankless diving, it doesn't matter anymore. Just bring a portable SSA unit and voilà!

Dive Professionals Earnings. In 2021, Scubanomics conducted a <u>study on the "economics" of being a dive</u> <u>professional</u>. Remuneration for dive instructors is dismal. They earn, on average, around \$15 per hour. Meanwhile, with everything that surface-supplied air diving systems eliminate and reduce, we can spend more time underwater with people, which generally means a higher hourly rate for the dive professional.

CREATE

One of the big factors brought in by surface-supplied air systems is **portability**—not just of our dive gear but of everything we need. Imagine the available markets. There are many more kayakers, yachties, and

stand-up paddlers than there are scuba divers. We can get them all interested in the underwater world through snorkeling and SSA without the need for scuba diving.

Investment Opportunities

When analyzing investment opportunities in the dive industry, we reached the following conclusions.

We would not invest in:

- Traditional dive training agencies
- Large, established, and non-innovative dive gear brands
- Local dive shops
- Dive resorts offering only scuba diving

We would invest in:

- Innovative dive gear brands
- Specialized dive gear brands
- Dive gear brands with a strong presence in a region not well serviced by large brands
- A global experience brand based on consistency in the quality of the experience
- Locally: My personal dive instructor brand (my name)

BWMG is both an innovative and a specialized dive gear manufacturer.

Disclaimer

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Continue reading about scuba diving, snorkeling, freediving, and surface-supplied air diving markets: **Scubanomics**.