

Mears Power-T, Inc.

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Ray Mears has developed a portable sound system that he thinks will be able to offer him an additional income. As a music minister at a small local church he has been searching for something to supplement his salary so that he can continue to afford to do what he loves (church music). With his knowledge of church and overseas missions' audio system needs, he developed a sound system that is very versatile and affordable for such customers. He has established a company, Mears Power-T, Inc., to begin to manufacture and market his design if it appears feasible.

BACKGROUND

Having been in the ministry and overseas mission work for over 20 years, Mears recognized the need for a powerful yet portable sound system as a convenient way to communicate to small or large groups both indoors as well as outdoors under varying conditions. Many years ago, he had been given a small backpack system that had come from a Hollywood sound studio. It was very lightweight but not very powerful. He used it for several years until finally it was broken beyond repair. A member of one of Mears' overseas mission teams told him that it resembled a piece of PVC and perhaps he should try to build one. This was the birth of the concept of the Power T.

Mears' "Power T" is a lightweight portable sound system that can operate on AC/DC power and has a self-contained microphone, amplifier, and a speaker (see Exhibits 1, 2 and 3). The battery-powered system is completely portable and can even be used with a keyboard or other electrical musical instruments. The name of the product was originally going to be "Port-a-Sound" to let the customer know

that the unit provides sound in a portable unit. Unfortunately, Mr. Mears had to change this name due to a possible trademark violation. He is not sure if the current name adequately reflects the features or benefits of the product to potential customers. Mr. Mears is confident of the attributes built into the product but wonders if there are any other design features the product should have.

The product's exterior is a plastic (PVC pipe) outer shell that is a very durable protector of the inside of the unit. The two-way speaker system provides high-quality sound that is very effective for singing or for speaking in a normal size room. In addition, if the customer needs to project to a large number of people either outside or in a very large room, the unit can accommodate additional speakers.

FIGURE 1
COMPONENTS OF POWER T



**FIGURE 2
ASSEMBLED POWER T**



The Power T also incorporates a horn speaker. The portable system has one audio input, so that the user can easily plug an auxiliary item directly into the unit, such as a cassette deck or a compact disc player. A microphone is attached to the unit, which provides high quality and clear sound to the audience. The unit is totally self-contained and carries a one-year warranty against all factory defects.

MARKET POTENTIAL

Mears thinks the product has great potential -- especially for schools, churches, and other organizations, particularly those that have outdoor events or the need for portable sound equipment, such as lifeguards at pools or on beaches. If the product has potential, Mears will be able to spend only a couple of days each week assembling and selling the Power T because he is a choir director at a church. This is his calling and his family needs the financial support provided by the position.

TABLE 1
SPECIFICATIONS FOR THE POWER T

AMPLIFIER:

30 watts
112 db @ 1 meter, 1000 cps
Output impedance: 4-16 ohms
Microphone and Auxiliary inputs
 with individual volume controls
AC/DC operation
Siren circuit
Durable steel faceplates and input jacks

BATTERY:

12-volt/5.0 amp hours rechargeable sealed lead acid

AC ADAPTER/CHARGER:

12 VDC @ 1.5 amp

WEIGHT:

20lbs (with standard accessories)

SPEAKERS:

Main Speaker:

High quality 6.5" Two-way
Freq. Response: 55-22kHz
Impedance: 4 Ohms
Rated @ 60 watts Continuous
Metal protective grill

Horn:

5"X8" at face, heavy duty ABS plastic body with
stainless steel hardware, rated @ 60 watts

DIMENSIONS:

12"HX21"WX11"D

MICROPHONE:

Standard Microphone:

Standard Heavy Duty Ball Type
Unidirectional (High Feedback Rejection)
600 Ohms
Freq. 90-10K
-75 +/-3db
On-Off Switch
Cast Steel Housing

Mears has gathered some data and believes that the primary market for his product consists of two main groups. The first includes schools, colleges, and universities. The second market segment consists of organizations such as churches. A breakdown of the different types of potential purchasers in selected counties/parishes of three states is shown in Exhibit 4. Even though there are other potential customers such as police departments, nursing homes, political groups, or even individuals or groups of singers, Mr. Mears' primary focus is on public and private schools, churches, and universities because of the perceived great potential of these groups to purchase the product. These organizations need compact and durable equipment that will withstand the wear and tear of everyday use. Pep rallies, choral events, and outdoor activities held by these groups usually presented the need for some type of sound equipment. The Power T is more flexible and powerful than amplified megaphones that are used by many of these groups.

Mears' initial thinking about a marketing strategy has focused on a selling strategy in which he would cover an area involving a one-way driving distance of 100 miles. He thought this would allow him to make sales calls and return home the same day with relative ease. With such an approach, Mears thought he would be able to easily maintain his church music director job with no sacrifice in performance. Within the 100-mile radius, Mears determined that there were 980 schools, 7,282 churches, and 8 universities in a tri-state area including Arkansas, Louisiana, and Mississippi. He did not yet know the identities or addresses of the specific organizations.

TABLE 2
METROPOLITAN STATISTICAL AREAS WITHIN 100 MILES
SOUTH ARKANSAS

Counties	Population	Schools	Churches	Univ/Colleges
Ashley	24,566	17	82	0
Bradley	11,587	7	39	0
Calhoun	5,727	3	20	0
Chicot	15,729	11	53	0
Clark	21,331	12	72	2
Cleveland	7,859	4	27	0
Columbia	25,733	16	86	1
Dallas	9,499	2	32	0
Desha	16,290	10	55	0
Drew	17,233	7	58	1
Hempstead	21,877	9	73	0
Lafayette	9,345	6	32	0
Lincoln	13,894	7	47	0
Nevada	9,938	5	34	0
Ouachita	29,541	15	99	0
Union	46,462	26	155	0
Total	286,611	157	964	4

WEST MISSISSIPPI

Counties	Population	Schools	Churches	Univ/Colleges
Carroll	9,773	5	33	0
Claiborne	11,284	5	38	0
Copiah	28,288	7	95	0
Hinds	271,917	93	840	5
Holmes	21,036	14	71	0
Humphreys	11,717	7	40	0
Issaquena	1,732	0	6	0
Jefferson	8,500	11	29	0
Leflore	37,463	16	125	1
Madison	63,683	23	213	0
Rankin	96,280	30	321	0
Sharkey	6,952	6	24	0
Sunflower	36,013	16	121	0
Warren	49,034	18	164	0
Washington	66,741	34	223	0
Yazoo	25,354	14	85	0
Total	745,767	299	2,428	6

NORTH LOUISIANA

Parishes	Population	Schools	Churches	Univ/Colleges
Avoyelles	39,099	16	130	0
Bienville	15,750	8	53	0
Bossier	86,747	32	289	0
Caddo	246,325	93	822	2
Caldwell	9,787	14	33	0
Catahoula	11,101	10	37	0
Claiborne	17,234	12	58	0
Concordia	20,901	3	70	0
DeSoto	25,042	13	84	0
East Carroll	9,574	8	32	0
Franklin	22,168	14	74	0
Grant	17,596	8	59	0
Jackson	15,538	9	52	0
La Salle	13,714	9	46	0
Lincoln	42,490	19	144	2
Madison	12,156	7	41	0
Morehouse	31,892	16	107	-
Nachitoches	36,662	18	123	1

Ouachita	144,910	44	484	1
Rapides	130,554	62	435	1
Red River	9,256	6	31	0
Richland	20,340	14	68	0
Sabine	22,948	12	77	0
Tensas	6,763	7	23	0
Union	20,814	10	70	0
Vernon	64,037	19	214	0
Webster	41,437	25	139	0
West Carroll	11,985	8	40	0
Winn	16,213	8	55	0
Total	1,162,760	524	3,890	7

COMPETITIVE ANALYSIS

After identifying what Mears thought were the most obvious target customers, he next tried to gain a better understanding of the competition. Mears thought that the Power T's main competitors would be amplified megaphones and portable sound systems since these are the most widely used systems in schools and churches. Even though these are the primary competitors, karaoke sound systems are also a threat due to the nature of the product (acceptable- to high-quality sound combined with one or more microphones for the purpose of singing). Currently, megaphones are the most commonly used communication tool in these target markets due to low cost and ease of use. However, Mears considered the Power T to have key advantages over its competitors due to certain attributes. Even though megaphones are portable, they do not provide a high quality of sound (especially for music) compared to the Mears Power T. Portable sound systems are also widely used by schools and churches. But Mears' product has a competitive advantage over this type of system because of its high mobility and AC/DC power flexibility. With its small size, just one person can carry, set up, and use it very easily. Component sound systems require AC power and generally require extra accessories, such as long cords and speakers to be able to communicate with the audience.

The threat of future competition always exists due to the ease of entry into this type of market. The possibility of a competitor copying the product is a threat to be considered in this situation. Mears' Power T competition and approximate prices are shown in Exhibit 5.

TABLE 3
COMPETITIVE PRODUCT PRICES

<i>Amplified Megaphone</i>	\$ 89.95
<i>Karaokes</i>	
Pioneer CLD-V880	\$799.98
Pioneer CLD-V870	\$699.98
Pioneer PD-V10G	\$387.98
Pioneer PD-V10G(B)	\$299.99
Zenesis K2-77	\$169.00
<i>Portable Sound Systems</i>	
Fender Passport P-150	\$424.99
Fender Passport PD-250	\$849.99

Production

Ray Mears thinks it may be best for him to be solely responsible for all the marketing and production activities. He wants to manufacture the Power T by himself without outside labor. Mears has built several prototypes for trial and feedback from users. In the process, he has refined the operation down to an efficient activity. Production basically involves assembly of the component parts into a carrying case. The case contains all the components and also includes a handle with a clip for a microphone. The cost of the components is \$210. By buying components in bulk he would be able to decrease variable costs by 10% and have the ability to build twenty units at a time. He can assemble one unit in an hour. With his current planned schedule of work, Mears anticipates that he will be able to assemble up to fifty units per month for sale and distribution. At this time, he can only devote 10-12 hours a week to production and sales of the product and still have time for his other responsibilities. Mears' hope is to produce enough revenue to provide an additional income of \$35,000 per year.

Mears has lined up a finance company loan of \$12,000 at 16 percent interest to move a small storage building onto his property to be used for manufacturing and storage. He will also use the loan to buy one month's supply of components. He felt he could interest potential investors in the product or acquire an additional loan if he could build and sustain a reasonable sales volume for 6-12 months.

Marketing

Mears would make personal sales calls on schools and churches to demonstrate the system and finalize sales. However, he is not at all sure that this is the most effective or profitable approach he could take. But he is confident that his knowledge of the product and the market's needs combined with his natural skills at communication would yield very good results through personal selling.

There are other parts of a marketing strategy that Mears has not yet finalized. He needs a prototype of a brochure that could be used in promotion to show to customers and leave behind where necessary. He does not know what other, if any, approaches he might need to take with promotion, their cost, or how he would go about planning and implementing any other alternative approaches.

Although being a one-man distribution approach for his product would allow him to control all aspects of the sale of the Power T, Mears does not know if that is how he should best spend his time and effort. In fact, he does not know what other options he might have for distribution of this product.

Mears plans to pay for all shipping costs in the delivery process if the unit must be shipped. If the customer is within a reasonable distance, then Mears plans to deliver the unit himself. Mr. Mears will be

in charge of all phases of the distribution process. He will take, process, and fill all orders. If a unit is found to be defective within the warranty period of one year, then he must make the service call and repair the unit.

Another issue for Mears is what to charge for the Power T. The enthusiastic response he has received from friends in the music ministry encourages him to charge a premium price. But he feels ethically bound not to “gouge” the prospects he will be selling to. He has a reasonable grasp on the cost structure that will form the minimum price floor from which to work. A friend in the local school system has told him that an interesting policy in Louisiana bid law requires only those items costing \$500 or more to be put out to bid. Mears assumes this must be representative of his other target states, so he plans to sell the units for \$499.

MARKET OPPORTUNITY ANALYSIS PLAN

A banker friend has told Mears that he could probably qualify for a traditional bank loan at 10 percent interest if he were to put together a thorough plan analyzing the business opportunity. He has decided this needs to be his next step in the process of getting the Power T to market and obtaining the supplemental income he desires.

Even more optimistically, if the Power T exceeded his present production and sales capacity levels within the next couple of years, it would present a challenge. Mears needs to have some contingency plans for a five-year period indicating how he would be able to take advantage of sales opportunities lying beyond the 100-mile range and production demands that could outstrip his present capabilities.